CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, May 26, 1910.

CONTENTS.

CONSTRUCTION NEWS:
Railways 217
Electric Railways 217
Light and Power Plants 217
Bridges 218
Buildings 219
Water Supply and Irrigation 220
Sewerage 221
Garbage Disposal 222
Streets and Roads 222
Manufacturing Plants 224
Miscellaneous Contracts 225
Contract Prices 225
Plans and Specifications on File 227
List of Contracts Pending 227
EXAMINATIONS 226
INDUSTRIAL NOTES 226
TRADE PUBLICATIONS 226
PROPOSALS 228

(List of Contracts Pending, and the list of Plans and Specifications on file at the office of Engineering News, will be found on the last page of this Supplement.)

RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

ABILENE & SOUTHERN.—A contract has been signed between Morgan Jones, Pres. of the Abilene & Southern Ry. Co., and citizens of Anson, Tex., for the construction of a road from Abilene via Anson to Hamlin. A force of engineers has started active work locating a permanent line from Anson to Hamlin, as it is contemplated to begin work on that end of the line first and follow same up with construction of the Abilene section in time to have the entire line ready for the fall crops. Noted last week under "Texas." Noted on Dec. 23, '09. Percy Jones is Ch. Engr., Abilene, Tex.

CALIFORNIA.—The directors of the Chamber of Commerce, Long Beach, Cal., have under consideration the question of recommending to the City Council that the city build and control a municipal railroad around a portion of the Long Beach harbor. The following resolution was approved recently by the railroad and harbor committees of the Chamber: "We recommend that the city of Long Beach build its own railroads on rock and across private right-of-way of the Los Angeles Dock & Terminal Co. to Water St. Also that it build and own its own railroad running southwest on Water St. to the intersection of Ocean Ave. and east on Clark St. to the intersection of Ocean Park Ave." This report was signed by W. E. Pascoe, E. E. Norton and C. J. Walker.

CANADIAN PACIFIC.—Bids were received on May 1 by J. S. Dennis, Asst. to the Second Vice-Pres., Canadian Pacific Ry. Co., Calgary, Alta., for all excavation required to complete the canal system in the eastern section of the company's irrigation block in Alberta, amounting to about 28,000,000 cu. yds. of material. Contract has been awarded to JAMES McDONNELL & CO., of Vancouver, B. C., with whom are associated Winter, Boomer & Hughes and Grant, Smith & Co., all of Spokane, Wash. Contract price is $5,230,000.

CINCINNATI, HAMILTON & DAYTON.—Company proposes to spend about $100,000 for improving its grain elevators and $75,000 for a new machine shop and roundhouse in Toledo, Ohio. A. C. Eversham is Res. Engr., Toledo. Noted on March 3.

COLORADO & SOUTHERN.—See Denver & Rio Grande.

DENVER & RIO GRANDE.—Contracts for jointly building 51 miles of double track between Pueblo and Walsenburg, Colo., by the Denver & Rio Grande R. R. Co., and Colorado & Southern Ry., Co., at a cost of $5,400,000, will be let soon, according to press reports, and it is expected that work on the new line will be begun by the end of the month. H. W. Cowan is Ch. Engr., Colorado & Southern Ry. Co., Denver. W. A. Balcom is Div. Engr., Denver & Rio Grande R. R. Co., Pueblo.

DENVER, KINGFISHER & GULF.—Contract has been awarded to M. CASSIDY, of Oklahoma City, Okla., for building the first ten miles of this railroad out of Oklahoma City. Right-of-way to Piedmont is now being secured and contract for an additional ten miles will be let at once. J. M. McDonald, of Kansas City, Pres.; O. T. Gregory, of Buffalo, N. Y., First Vice-Pres.; F. C. Muender, of Shattuck, Okla., Second Vice-Pres.; D. K. Cunningham, of Kingfisher, Okla., Secy.; W. W. Bonson, of Dubuque, Iowa, Treas. J. C. Gilmore, of Kingfisher, is Ch. Engr. Noted on Dec. 16, '09.

GREAT NORTHERN.—This company, through its attorneys, Veazey & Veazey, of Great Falls, Mont., has given out information regarding a 350-mile extension. The new road will start from Hauck (Straw post-office), Mont., C., M. & P. S. Ry., to Lewistown, and from there east to Mondak, where it will connect with the main line running to the extreme eastern end of the state. From Lewistown the road will pass through the Flat Willow creek country, and from there to the Musselshell River direct to Mondak. The new road will open up thousands of acres of fertile land in Fergus and Dawson counties. A. H. Hogeland is Ch. Engr., St. Paul, Minn.

KANSAS CITY, SAPULPA & SOUTHWESTERN.—Contract has been awarded to S. [illegible] OWENS, of Okmulgee, Okla., to furnish 40,000 ties to be used in the construction of the Kansas City, Sapulpa & Southwestern Ry., between Sapulpa and Tulsa, Okla., the first section to be built. The road is to run to either Collinsville or Skiatook, thence southward through Nowata, crossing the 'Frisco at Miami and running thence to Joplin, where it will connect directly with the Kansas City Southern Ry. No bonus money is to be paid by the towns until the line is completed and running as far as either Collinsville or Skiatook.

KANSAS, LAWTON & GULF.—Company has awarded contract to the AVERY ENGINEERING & CONSTRUCTION CO., of Walters, Okla., for building the line south to Wichita Falls, Tex., also northeast via Duncan and Chickasha to Oklahoma City, altogether about 140 miles. F. Avery is Ch. Engr., and Gen. Mgr. Work is under way. Noted officially on March 3.

LACLEDE, DALLAS & WESTERN.—Contract for building the 22-mile section between Phillipsburg and Buffalo, Mo., has been let to DAVIS & BLAIR, Joplin, Mo. Surveys are made and right-of-way secured. H. W. Smith, 318 American Bank Bldg., Kansas City, Mo., is Ch.-Engr. Noted on April 21.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—THRASHER & GUNTER, Knoxville, Tenn., have been awarded the contract to build twelve miles of double-tracking for the N. C. & St. L. Ry., from Wauhatchie to Whiteside, Tenn. Their bid on the work was $300,000. About 500 men will be put to work on the new lines at once.

PHOENIX & BUCKEYE. — The SHATTUCK-EDINGER CO., 109 Sixth St., Los Angeles, Cal., has been awarded a grading contract on the Phoenix & Buckeye R. R., in Arizona. L. H. Long is Ch. Engr., Phoenix, Ariz.

STEPHENSVILLE, NORTH & SOUTH TEXAS.—Contract is reported let to THOMPSON & SCOTT, St. Louis, Mo., to build extension to the Stephenville, North & South Texas Ry. from Hamilton, Tex., southeast to Batesville, 32 Miles. B. C. Cage is Pres., and W. S. Watson is Secy., Stephenville, Tex. W. P. McCOY, J. H. KILBECK and B. J. GRAMMETT, of Hamilton, are the sub-contractors for the first 17 miles out of Hamilton. Noted last week.

TAMPA & JACKSONVILLE.—F. S. Parrigin, Ch. Engr., Gainesville, Fla., informs us that this company has recently made extensive improvements in its 48 miles of track, putting up new depots, laying 60-lb. rail and making all improvements necessary to bring it up to standard in every respect. As soon as the improvements are completed, the company will undertake an extension, for which bids will soon be asked. All surveys are completed. All new work undertaken will be standard, maximum grade, 1%, curvature not to exceed 3°, 2,600 ties to the mile, and is to be laid with 60-lb. rail. The road will later on be in the market for rails, construction contracts, etc.

TEXAS.—A railway, to be known as the Somerville & Taylor Short Line, or the Taylor, Somerville & Gulf Ry., is being promoted by N. R. Hoxie, of Lexington, Tex. It will connect Somerville, Tex., with Taylor.

VERA CRUZ, TABASCO & CAMPECHE.—Contract has been signed between the Government and the officials of the Vera Cruz, Tabasco & Campeche Ry. Construction Co. for the construction of this railway from the Isthmus of Tehuantepec to connect with the United Railroads of Yucatan at the City of Campeche. For the Government the contract was signed by Leandro Fernandez, Minister of the Department of Communications and Public Works. The company was represented by William Prim Wood, Vice-Pres. and promoter of the road, and A. L. Van Antwerp, Secy. This final step in the way of the contract was preceded by a deposit by the company of 150,000 pesos with the National Bank of Mexico, as a guarantee for carrying out the provisions of the contract. The National Bank of Mexico, in turn issued a certificate of deposit, which authorized the Minister of Department of Communications and Public Works to sign the contract.

The concession gives the company six months in which to begin its surveys, and twelve months from that date for the actual construction work to begin. The company is thus given 18 months to get ready to start work on the road. Ten years from the date that work begins is the time limit put on the company for completing the line and having it in operation. From the Federal Government the company gets a subsidy of 12,500 pesos per kilometer, on the basis of 750 kilometers of road. No subsidies have as yet been received from the four states through which the road will pass, but they have practically been promised. Officers of the company are as follows: Donato Chapearpuge, Pres.; William Prim Wood, Vice-Pres.; J. J. Lemmens, Treas.; A. L. Van Antwerp, Secy., Mexico City. Noted on May 12, under "Mexico."

WAMEGO & ROCK CREEK VALLEY.—We are officially advised that bids will be taken within 30 days for building this railway from Wamego to Westmoreland, Kan., 22 miles. Surveys are completed, capital obtained, and right-of-way secured. C. C. Eastman is Ch. Engr., Westmoreland. Noted on Nov. 4, 1909.

WEST SIDE BELT R. R.—We are officially advised that the only work being done at present by this company is the reconstruction of bridge No. 1 at point of connection with Pittsburg & Lake Erie R. R., in West End of city of Pittsburg. Estimated cost, $185,000. C. A. VAN DUSEN is the contractor. Noted on April 14.

WESTERN OF GEORGIA R. R.—R. M. Hall, Ch. Engr., Newnan, Ga., advises us that contracts will be let at an early date for building from Franklin, via Newnan, to Aberdeen, Ga., 36 miles. IRA L. McCORD, 42 Broadway, New York, is the general contractor. I. N. Orr is Pres., Newnan, Ga. Surveys are made and capital and right-of-way are secured. Noted on Dec. 23, '09.

ELECTRIC RAILWAYS.

TRENTON, N. J.—Articles of incorporation have been filed with the Secretary of State at Trenton by the Elizabeth & Trenton R. R. Co., which was organized to take over the electric line of the Trenton & New Brunswick R. R. Co. The new company will also control the property of the New Jersey Short Line R. R. Co., an extension of the main line from Milltown, through New Brunswick to Elizabeth. The authorized capital stock is $1,200,000, of which $300,000 is to be preferred stock bearing 5% cumulative dividends. The incorporators are Irvin Shupp, Jr., and Claude L. Rihl, of Philadelphia; Charles Sinninkson, of Rosemont, Pa.; H. Hayes Aikens, John W. Kelly and E. A. Garwood, of Llanerch, Pa.; Chester A. Entrekin, of Ardmore, Pa.; John R. Turner, of Basking Ridge, N. J., and H. O. Coughlan, of Brooklyn. The first directors chosen are Messrs. Shupp, Aikens, Rihl, Entrekin, Kelly, Garwood and Turner. The Trenton & New Brunswick R. R. Co., which operates under a steam railroad franchise, was sold recently under foreclosure proceedings by The Finance Co. of Pennsylvania. The purchasers were Irvin Shupp, Jr., and Charles Sinninkson, who planned the reorganization.

The UNITED PAVING CO., of Atlantic City, N. J., has been awarded a $75,000 contract by the Trenton Street Railway Co. for the reconstruction of the street railway system in Princeton Ave., Broad St., Clinton St., State St. and Olden Ave., Trenton, together with repairing the company's portion of all streets. There were eight other bidders. The price of bitulithic quoted on this contract was $2.686 per sq. yd.

HUNTINGDON, PA.—The Huntingdon Lewiston & Juniata Valley Traction Co. has awarded contracts to W. D. CASSONE and to the PENNSYLVANIA EXCAVATING CO., both of Allentown, Pa., for building its line in Pennsylvania. The plans call for a line from Mount Union north via Mill Creek to Cold Spring Park, 18 miles, with a line running northeast from Mill Creek to Reedsville, thence south to Lewistown, 30 miles. A portion of the work has been finished. R. W. Jacobs is Pres. and Gen. Mgr.; J. Murray Africa, Huntingdon, is Ch. Engr. Noted on April 28.

CLARION, PA.—The Clarion & East Brady Electric Ry. Co., it is announced, will soon start construction on its proposed 30-mile railway, which is to connect Clarion, Reidsburg, Sligo, Rimersburg and East Brady. Power house and repair shops will be located between Sligo and Rimersburg. Company also plans to furnish power for lighting. Capital stock, authorized, $1,000,000. Bonds authorized, $1,000,000. G. E. Arnold, Clarion, is Pres.; T. S. Arnold is Secy. Noted on Feb. 10.

CLARKSBURG, W. VA.—The Clarksburg & Weston Traction Co. proposes to commence construction soon on its proposed 24-mile electric railway between Clarksburg and Weston. Capital stock, $500,000. S. L. Watson is Pres., Fairmont; C. W. Watson, Baltimore, Md., Vice-Pres.; Walton Miller, Fairmont, Secy. and Treas.; James O. Watson, Fairmont, Gen. Mgr.; A. T. Watson, Fairmont, Purchasing Agent; D. D. Britt, Clarksburg, is Ch. Egr. Noted on May 5.

CLARKESVILLE, GA.—The Habersham Orchard & Improvement Co., of Clarkesville and Atlanta, may build an electric railway seven miles long from Clarkesville to its orchard property. Norman T. Pool is Pres.; J. W. Pritchett, Vice-Pres.; D'Anson Iseley, Secy. and Treas. A. F. Quillian is Attorney, 16 Trinity Ave., Atlanta, Ga.

ALLIANCE, OHIO.—M. B. Keith, R. M. Scranton, Arthur Wright and B. F. Smyth have secured a charter for the Alliance & Akron Elec. Ry. Co. The proposed electric line is to run between Alliance and Akron, a distance of 26 miles.

CLEVELAND, OHIO.—Improvements to the street car service to cost the Cleveland Municipal Traction Co. $250,000 were approved by the City Council last week. The largest item was for converting 230 cars to the Pay-As-You-Enter type, to cost $196,468. The report of the company for April earnings was received. It showed $25,257 surplus. W. T. Cook is Supt., 620 Electric Bldg. Noted on May 5.

Contract has been awarded to JOHN DOYLE by the Municipal Traction Co. for a belt line.

SOUTH BEND, IND.—Application has been made to the County Commissioners of St. Joseph County, Ind., by Omar E. Neff, of Neff Bros., bankers at Milford, Ind., for a franchise for the construction of a railroad in St. Joseph County which will be a part of the proposed road from Bremen to South Bend and Mishawaka. The road may be either electric or gasoline, according to the provisions of the application, and it will pass over private right-of-way in Penn and Madison townships. Noted on April 14.

MICHIGAN CITY, IND.—The CLEVELAND CONSTRUCTION CO., 608 Citizen Bldg., Cleveland, is stated to have the contract for double-tracking the Chicago, Lake Shore & South Bend Ry., between Pullman, Ill., and Gary, Ind., 17 miles. Noted on April 14.

HARVEY, ILL.—The Eastern Illinois Ry. Co. has been granted a 50-year franchise by the Council to build an electric railway in Harvey. This line will connect West Hammond, Harvey, Burnham, Hegewisch and Riverdale, as fully noted on April 14.

ABERDEEN, S. DAK.—The Aberdeen Street Ry. Company, of which C. N. Herreid is Mgr., has just let the contract for the material for five miles of street railway to the BELL LUMBER CO., of Minneapolis. It is the intention of the street railway company to let the contract for the construction of that amount of the line within a short time, and it is expected the street cars will be running by fall. Noted on May 12.

SHERIDAN, WYO.—The Sheridan Ry. & Light Co. announces that material is ordered and that its plans are under way for starting construction soon on its proposed 13-mile interurban railway in Sheridan, Wyo., extending nine miles out of Sheridan to various coal mines in Wyoming. Power station will be located seven miles west of Sheridan, and repair shops in Sheridan. Company will also furnish power for lighting and power for the mines. Albert Emanuel and William Sullivan, Conover Bldg., Dayton, Ohio, were recently granted a franchise for this project, as noted last week.

BROWNSVILLE, TEX.—The City Council has granted a street railway franchise to B. G. Stegman and others for a railroad to be operated by electricity or gasoline motor power. Construction is to be commenced within four months and three miles must be finished within one year. The whole line must be completed within two years. The franchise is for 25 years. Noted on Feb. 3.

OAKLAND, CAL.—Local press reports state that surveyors have practically completed the field work for an extension of the 22d St. line of the San Francisco, Oakland & San Jose Ry. Co. through East Oakland, Dimond, Allendale, Melrose Heights, Elmcrest and East San Leandro. All that remains is the securing of franchises and the commencement of work on the road. W. F. Kelly is Gen. Mgr., 710 San Pablo Ave., Oakland.

TORONTO, ONT.—The application of the Toronto Railway Co. for permission to lay tracks on certain streets of the city has been granted by the Ontario Railway and Municipal Board. The company proposes to lay rails on Victoria St., Wilton Ave., Shuter, Teraulay, Agnes, Anderson, St. Patrick and Harbord Sts. and University Ave. R. J. Fleming is Gen. Mgr.

The Civic Works Committee of Council has voted in favor of the construction of the three street railway lines recommended by C. H. Rust, City Engr. If Council passes the recommendation the Toronto Railway Co. will be asked to build the lines. should the company refuse, the city may apply to the Ontario Railway and Municipal Board for a compulsory order. Engineer Rust estimates the cost of the new lines at $1,170,000 to the city and at about $500,000 to the company.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—The City Council on May 16 requested the Superintendent of Streets to readvertise for bids for the new gas lighting contract. Only one company submitted a bid, the Rising Sun Street Lighting Co., of Boston, which now has the contract. The company offers to do the work under a 5-year contract for the same figure as under the contract made last year. Estimated cost, $1,500,000.

NEW HAVEN, CONN.—PEETE & POWERS, 45 West 34th St., New York, have been awarded contract for the installation of the power and heating plant at the New Haven Hospital. H. T. Summergill is Supt.

The New York, New Haven & Hartford R. R. Co. has transferred all of its gas and electric lighting properties to the Housatonic Power Co. Among the properties so transferred are the lighting plants at Norwalk, South Norwalk, Greenwich, Naugatuck, Waterbury and New Canaan. The capital stock of the company is to be increased from $1,000,000 to $3,000,000. This increase will be used in paying for the acquired properties and for working capital.

PLATTSBURG, N. Y.—Bids will be received at the office of the Constructing Quartermaster, Plattsburg Barracks, until June 9 for construction of one four-set officers' quarters at Plattsburg Barracks, including plumbing, heating and electric wiring and electrical fixtures. Plans and specifications may be seen at the above office and at the office of the Chief Quartermaster, Governor's Island, N. Y. Capt. Edward T. Hartman is Constructing Q. M., U. S. A.

NEW YORK, N. Y.—Bids are asked until 11 a. m., June 6, by C. B. J. Snyder, Supt. School Bldgs., Park Ave. and 59th St., Manhattan, for installing electric equipment in New Public School 77, on southerly side of Covert Ave., between Centre and George Sts., Ridgewood Park, Boro. of Queens; for completing and finishing the electric equipment in Public School 162, on the northerly side of St. Nicholas Ave., between Willoughby Ave. and Suydam St., Boro. of Brooklyn, in accordance with the original plans and specifications of contract awarded to E. J. Duggan, which has been declared abandoned.

ATLANTIC CITY, N. J.—Contract for installing generator exciter, switchboard and transformers at Absecon pumping station, bids opened on May 3, has been awarded by the city to the FORT WAYNE ELECTRIC CO., of Fort Wayne, Ind., at $4,056.

BEAVER, PA.—Plans have been submitted to the Borough Council for the construction of a municipal electric light plant. Two separate estimates were submitted, one to cost $49,200, and the other for $56,400. The first plan submitted showed operating expenses of $9,470 and earning capacity of $11,932, and the second the cost of operating $10,605 and earning capacity of $13,825. The report was referred to the Light Committee and the Ordinance Committee.

WASHINGTON, D. C.—Bids were opened as follows on May 21 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for additions to power plant and distributing systems, Naval Medical School building, Washington: Carnahan & Maguire, 1420 New York Ave., Washington, Item (1) $54,800, (2) $500, (3) $500; The Norman A. Hill Engineering Co., 150-3 Sansom St., Philadelphia, Pa., Item (1) $40,400, (2) $400; Boyle-Robertson Construction Co., 305 Union Trust Bldg., Washington, Item (1) $38,773, (2) $385, (3) $500; Upton Smoot Construction Co., 902 F St. N. W., Washington, Item (1) $36,500, $475 deduct, $500 deduct, $800 deduct, (2) $350, (3) $210; James E. Leamy & Co., Larned Bldg., Syracuse, N. Y., Item (1) $47,198, (2) $590, (3) $130; John W. Danforth Co., 227 Colorado Bldg., Washington, Item (1) $33,969, $150 deduct, $700 deduct, (2) $700, (3) $150; D'Olier Engineering Co., 121 So. Eleventh St., Philadelphia, Item (1) $39,700, (2) $1,050, (3) $278; Standard Engineering Co., 613 15th St., Washington, Item (1) $33,785, (2) $350, (3) $400; McCay Engineering Co., 9 E. Lexington St., Baltimore, Md., Item (1) $35,400, $36,400, (2) $300, (3) $800.

CLINTON, N. C.—The Sampson Power Co., lately incorporated with a capital stock of $10,000, has secured a site and will erect a power plant with headquarters in Clinton. C. W. Petty, B. P. Smith and others are interested.

ATLANTA, GA.—The Atlanta Hydroelectric Co., Candler Bldg., Atlanta, Ga., has been incorporated for the purpose of constructing a 25,000-HP. hydroelectric plant on the Tugaloo River, requiring a dam 700 ft. long and 120 ft. high, and a transmission line 92 miles long. Louis B. Magid is Pres.

DONALDSONVILLE, GA.—See item under Water Supply-Irrigation.

DALTON, GA.—See item under Water Supply-Irrigation.

WARRENTON, GA.—The citizens on May 10 voted to issue $12,000 of bonds for the installation of an electric lighting system.

MILTON, FLA.—The city proposes to construct an electric light plant from plans of Solomon Norcross Co., of Atlanta, Ga. Estimated cost, $40,000. H. W. Clark is Mayor.

DANVILLE, KY.—We are officially advised that the Ambursen Hydraulic Construction Co., 176 Federal St., Boston, Mass., is preparing plans for a small water-works for the city.

DAYTON, OHIO.—The Board of Control has awarded contract for street lighting to the DAYTON LIGHTING CO. for a term of ten years, under the terms of which the company is to furnish arc lamps at $66 per lamp per year. At present the street lighting system consists of about 800 lamps.

WILLOUGHBY, OHIO.—The town has decided to abandon its municipal electric light plant and has awarded to the CLEVELAND, PAINESVILLE & EASTERN TRACTION CO. a 10-year franchise and a contract for street lighting. The traction company is installing transformers and as soon as the work is completed electricity will be furnished for both street and residential lighting.

CYNTHIANA, IND.—The citizens have voted to install an electric light system. Electricity for operating the system will be supplied from Poseyville, four miles away, and it is expected that the farmers living along the road will utilize the service for lighting purposes.

CRAWFORDSVILLE, IND.—The citizens have authorized the City Council to let a contract for the erection and equipment of a new electric light and power plant. Estimated cost, $100,000.

NEWTON, IOWA.—Bids will be received until June 9 by Frank Sellman, County Audr., for installing electric light fixtures in the new county court-house.

MONTICELLO, IOWA.—The Electric & Water Supply Co. is arranging for extensive additions to its plant, and proposes to increase the capital stock to $30,000 and to issue bonds for $100,000 to provide funds for the development of the upper dam.

OAKLAND, IOWA.—It is proposed to construct an electric light plant here. Estimated cost, $15,000. H. W. Stevens, of Oakland, is Engr.

OMAHA, NEB.—Bids, in triplicate, will be received until 11 a. m., June 10, by Capt. F. C. Bolles, Q. M., U. S. A., Omaha, for installing a steam heating plant in the storehouse at Omaha Depot.

MILFORD, NEB.—See item under Water Supply-Irrigation.

WAHPETON, N. DAK.—Bids are asked until 2 p. m., June 14, by R. G. Vatentine, Comr. Indian Affairs, Washington, D. C., for a complete steam-heating plant at Wahpeton School.

FORT LOGAN H. ROOTS, ARK.—The following bids were opened on May 10 by the Constructing Quartermaster for an electric lighting system: (a) constructing transmission, primary secondary service connection, (b) wiring building and installing fixtures, (c) furnishing wattmeters and transformers, (d) tungsten street lamps, etc., (e) constructing substation: F. E. Newberry Electric Co., St. Louis, Mo. (a) $9,281, (b) $10,279, (c) $1,312, (d) $1,335, (e) $800; General Electric Co., St. Louis, (a) $1,261; Westinghouse Elec. Mfg. Co., Baltimore, Md., (c) $1,198, (d) $1,486; Southwestern Electric Equipment Co., Little Rock, Ark. (b) $4,589; McCay Engineering Co., Baltimore, Md. (c) $1,289.

BROWNSVILLE, TEX.—We are officially advised that the city proposes to make improvements to the light and water plant. M. C. Hanson is City Engr.

SPUR, TEX.—E. P. Swenson will install an electric light plant at Spur. The contract has been let to J. E. JOHNSON, of Stamford, Tex.

TERRELL, TEX.—The city will install additional dynamos in its electric light and power plant. The plant is now furnishing day and night light and power service.

FORT CROCKETT, TEX.—Plans and specifications are on file at the office of Engineering News, New York, for the construction of an electric lighting system here. Bids are asked until **May 31.**

SANTA FE, N. MEX.—The articles of incorporation of the San Luis Power & Water Co., of Costilla, Taos County, have been filed in the Territorial Secretary's office here. It has a capital stock of $1,000,000. The incorporators are: H. Alexander Smith, George Bierbrauer and Michael B. Hurley, all of Colorado Springs, Colo. The Board of Directors is as follows: Franklin E. Brooks, Gerald Hughes, Fred. Hughes, Fred. C. Moffat, Horace G. Lunt and H. Alexander Smith. The company is authorized to operate in Taos County, and in El Paso County, Colo.

SEATTLE, WASH.—R. H. Thomson, City Engr., has estimated the cost of cluster lights in various streets as follows: Westlake Ave. and other streets, $14,000; Stewart St. and other streets, $9,600; Third Ave. and other streets, $21,000.

MEDFORD, ORE.—The Rogue River Water & Power Co. is preparing to make extensive extensions and improvements to its property, to cost about $100,000. The plans call for the construction of a power plant on the Gold Hill canal, for which surveys have been made.

PORTLAND, ORE.—The Ambursen Hydraulic Construction Co., 176 Federal St., Boston, Mass., through their associate engineers, the Puget Sound Bridge & Dredging Co., will break ground in a few days for the construction of a dam 86 ft. high in the rollway, 100 ft. high in the bulkhead and 680 ft. long, across the Clackamas River, in Oregon, for the Portland, Ry., Lt. & Power Co. This includes also a large power-house. The consulting engineers for the owners are Sellers & Rippey, of Philadelphia.

ROSEVILLE, CAL.—The city has voted to issue $90,000 of bonds for the construction of a municipal electric light plant, sewer system and a bridge across Dry Creek.

STOCKTON, CAL.—The Board of Supervisors has awarded contract for installing the lighting system around the court-house to the RUHL GOODELL CO., at $3,300.

SAN FRANCISCO, CAL.—The United Light & Power Co. has been incorporated with a capital of $6,000,000 to manufacture gas and electricity for lighting purposes. The incorporators are Alfred Sutro, San Francisco; F. D. Madison, San Rafael; William T. Barnett, Berkeley, and others.

The Southside Light & Power Co. has been incorporated with a capital of $1,000,000 by James Fisher, Berkeley; Fred. G. Cartwright, San Francisco; E. R. Hough, Kentfield, and others.

SAN FRANCISCO, CAL.—The Pacific Power Co. was incorporated on May 11 with an authorized capital stock of $1,000,000. A. E. Anderson, James McNab and George W. Hendry are the directors. The articles allow the concern to operate water and power plants anywhere in the state.

MARYSVILLE, CAL.—The Pacific Gas & Electric Co. is considering plans for improvements to its local gas plant at Fourth and Yuba Sts., including a new boiler as an auxiliary to the present one. The company is extending its electric transmission lines farther into Sutter County and other surrounding territory.

LOS ANGELES, CAL.—Plans are being prepared in the engineering offices of the Southern California Edison Co. for a $2,000,000 power plant to be erected by the company at Long Beach, to be two buildings, one 300 × 80 ft. and 90 ft. high, the other 80 × 50 ft., of reinforced concrete, steel roof trusses, Spanish tile roofing and pile foundation. Work will be done by contract. Plans will be ready in 30 days. W. A. Brackenridge is Gen. Mgr.

REDONDA BEACH, CAL.—The Pacific Light & Power Co. has awarded contracts as follows: To C. LEONARDT, Hellman Bldg., Los Angeles, for reinforced concrete chimney 126 ft. high, at $4,900; to J. H. MARTIN CO., Stimson Bldg., Los Angeles, for a reinforced-concrete boiler room 100 × 300 ft. and 90 ft. high, at $28,800.

PROVO CITY, UTAH.—We are officially advised that Louis C. Kelsey, C. E., 402 Dooly Bldg., Salt Lake City, Utah, has been employed as consulting engineer for the city in the proposed hydroelectric plant. Estimated cost, $110,000.

*IDAHO FALLS, IDAHO.—Bids will be received at the office of the City Clerk until 3 p. m., June 17, for furnishing materials and constructing hydroelectric plant and pumping station. Plans may be seen and specifications, forms for contract and bond may be obtained upon application at the office of the City Clerk or Louis C. Kelsey, C. E., 402 Dooly Bldg., Salt Lake City, Utah.

LLOYDMINSTER, SASK.—The by-law passed by the City Council granting an 8-year franchise to W. Johnson to operate an electric light plant in Lloydminster has been ratified by the ratepayers.

ESTAVAN, SASK.—A by-law authorizing the expenditure of $25,000 for the construction of a municipal electric light plant has been voted by the ratepayers.

PARRAL (CHIHUAHUA), MEX.—E. Lindblom has obtained a concession from the State Government for an electric light and power plant and a telephone system which he will install in the city of Parral. The concession runs for a period of ten years. Exemptions from state and municipal taxes during that period are provided for in the concession.

ENCARNACION (HIDALGO), MEX.—Robert S. Towne and associates who are operating the Flojonales copper mines in this district will install a hydroelectric plant on the Ixmiquilpan River, near here. The proposed plant will have a capacity of about 20,000 HP. and the electrical energy will be transmitted to the mines and mill. It will also be used to operate other industries, including an electric railway that the Towne interests contemplate constructing from Encarnacion to the station of Sayula on the National Railways of Mexico.

BRIDGES.

(* *denotes that this work is advertised in Engineering News.*)

HUDSON, N. H.—The town on May 14 voted to co-operate with the city of Nashua in the construction of a reinforced concrete bridge, 30 ft. wide, with a 6-ft. sidewalk, between Hudson and Nashua. Estimated cost, $80,000.

NASHUA, N. H.—Bids will be received by E. O. Hathaway, City Engr., until 7.30 p. m., June 6, for the construction of a reinforced-concrete bridge 500 ft. long over the Merrimack River.

WALTHAM, MASS.—Bids are asked at once by the city for the construction of a new bridge between Weston and Waltham. Betram Brewer is City Engr.

WATERBURY, CONN.—Bids have been received as follows by the Board of Public Works for the construction of a bridge over Sled Hall Brook: (a) trap rock; (b) Weymouth Rock: J. S. Barbara, Waterbury, (a) $3,669, (b) $3,927; J. W. Gaffney & Sons, Waterbury, (a) $5,229, (b) $5,349; Chatfield & Chatfield, Waterbury, (a and b) $5,331; A. Johnston Building & Construction Co., Waterbury, (a) $5,625, (b) $6,505.

ST. GEORGE (S. I.), N. Y.—The Municipal Art Commission of New York on May 11 approved the plans for a steel viaduct, to cost $43,570, between the ferry terminal and Jay St., St. George. It will be 60 ft. wide, and will carry trolleys and passengers across the Baltimore & Ohio R. R. tracks, coming out in front of the Borough Hall of Richmond.

MASSENA, N. Y.—Bids will be received by Barney S. O'Neill, Chn. Town Com., until June 4 for furnishing material and constructing complete a 600-ft. highway suspension bridge over River De Grasse, Massena Center. H. D. Robinson, 2 Rector St., New York, is Engr.

SYRACUSE, N. Y.—Bids will be received by the Board of Contract and Supply, John J. Halloran, Secy., until May 31 for furnishing material and erecting a steel plate girder bridge over Onondaga Creek, at West Brighton Ave.

HAMPTON, N. J.—GASTON & RICHARDS, of Somerville, N. J., have secured contract at $19,000 for the enlargement of the Central R. R. culvert at this city.

TURTLE CREEK, PA.—The Allegheny County Commissioners, it is reported, have awarded to the FORT PITT BRIDGE WORKS, Canonsburg, the contract for constructing a bridge over Thompson Run at $6,000.

ALTOONA, PA.—The County Commissioners on May 17 awarded contract to FOGEL & CO., of Hollidaysburg, Pa., for the concrete double-arch bridge near Brook Mills, Blair Township, at $5,097.

NEW CASTLE, PA.—The County Commissioners have awarded contract to the PENN BRIDGE CO., Beaver Falls, Pa., for the construction of the Walker Mill bridge at Nechannock Falls, at $5,098. The same company secured contract for the bridge at Enon at $3,990.

PITTSBURG, PA.—See item under Railways: West Side Belt R. R.

WILMINGTON, DEL.—All bids opened by the Levy Court at Wilmington, on May 3, for the construction of a reinforced concrete girder bridge at Nexentown Mill Dam, St. George's Hundred, Del., have been rejected. James Wilson is County Engr.

DANVILLE, VA.—We are officially advised that the city will construct an iron bridge. Estimated cost, $25,000. J. O. Magruder is City Engr.

LEESBURG, VA.—Bids are asked by Loudoun County until July 25 for constructing an iron or reinforced concrete bridge across "The Dutchman" at George's Mill in Lovettsville district, and iron or reinforced concrete bridge across Little River near Aldie in Mercer district. J. J. Crim and others, Commissioners, in charge of construction of first-named bridge, and George Frasier and others in charge of second-named structure.

RICHMOND, VA.—See item under Streets and Roads.

FAIRMOUNT, W. VA.—We are officially advised that the city proposes to construct a new bridge. S. B. Miller is City Engr.

PARKERSBURG, W. VA.—Contract for the construction of a concrete arch bridge across Worthington Creek at the Northwestern Pike was awarded on May 14 by the County Court to the NELSON-MERYDITH CO., of Chambersburg, Pa., at $7,295. The Farris Bridge Co., of Pittsburg, Pa., bid $7,890 for the work.

SMITHFIELD, N. C.—Bids are asked until June 6, by Sam. T. Honeycutt, Clk. County Comrs., for the erection of iron bridge.

HUNTSVILLE, ALA.—The Southern Ry. Co., D. W. Lum, Ch. Engr., Washington, D. C., is having surveys made for viaduct on West Clinton St.

WARREN, OHIO.—Bids are asked until 1 p. m., June 6, by the Board of County Commissioners for the necessary labor and material for the construction of the superstructure of a bridge over Grand River, about 1½ miles east of West Farmington. Fred Stone is Audr. Trumbull County.

ELYRIA, OHIO.—Bids will be received until June 1 by the Board County Commissioners, at Elyria, for constructing [illegible] steel bridges with concrete floors in Wellington and Grafton Townships. C. H. Lawrence is County Engr.

DAYTON, OHIO.—F. J. Cellarius, City Civil Engr., advises us that the press clipping was incorrect from which the item in issue of May 12 was taken. Contract was awarded to A. S. FOX, Dayton, at [illegible],855, for "modern Scherzer rolling lift bridge" over canal at Webster St., not for Straus bascule type.

CLEVELAND, OHIO.—Bids are asked by the County Commissioners until 11 a. m., June 22, for bridge work per Report No. 2629, culvert, Center Ridge Road, Rocky River Township.

CINCINNATI, OHIO.—Bids are asked by the County Commissioners until noon, June 17, for superstructure and substructure of lift bridge over the Miami and Erie Canal in Section Ave., Hartwell, Springfield Township. Fred Dreihs is Clk.

GREENCASTLE, IND.—Bids will be received until June 8 by the County Commissioners at Greencastle for constructing three concrete bridges and a steel bridge in Cloverdale Township. Alex. Lane is Engr., Greencastle.

FORT WAYNE, IND.—Bids are asked by George W. Lindemuth, Audr., Allen County, until June 7, for the construction of seven culverts, three concrete abutments, three steel bridges and the repair of four bridges.

HARTFORD CITY, IND.—Bids are being asked by the Commissioners of Blackford County for the construction of two bridges across Salamonic River.

LOGANSPORT, IND.—The Panhandle R. R. Co. is planning to let a contract for a bridge across the Wabash River.

NEW ALBANY, IND.—Bids will be received until June 1 for the construction of a new double-track bridge across Ohio River by the Kentucky & Indiana Bridge Co. Estimated cost, $2,000,000.

NEWCASTLE, IND.—See item under Buildings.

SHELBYVILLE, IND.—Bids are asked until 10 a. m., June 7, by the County Commissioners for the construction of bridges and bridge repairs in Shelby County. G. W. Huntington, Audr.

MADISON, IND.—Bids are asked until 1 p. m., June 7, by the County Commissioners, for the construction and repair of bridges. G. F. Crozier is Audr., Jefferson County.

HAMMOND, IND.—Bids are asked until noon, June 6, by the Board of County Commissioners, for the construction of a steel bridge over the Grand Calumet River. Charles Johnson is Audr. Lake County.

LA FAYETTE, IND.—Bids are asked by the Commissioners of Tippecanoe County until 10 a. m., June 8, for the construction of several bridges. John P. Foresman is County Audr.

PORTLAND, MICH.—The WYNKOOP & McGORMLEY CO., Toledo, Ohio, has been awarded contract for the construction of a single span steel bridge across the Grand River at Turner's Ford, in Danby Township, at $9,444.

HIGHLAND PARK, ILL.—Bids are asked until 8 p. m., June 7, by the City Council, for furnishing all labor and material necessary for the construction of six reinforced concrete girder type bridges. H. L. Bowen is Comr. Pub. Wks.

HASTINGS, MINN.—Bids will be received until June 8 by P. A. Hoffman, County Audr., at Hastings, for constructing a steel and concrete approach to the Cedar Ave. bridge, located in this county, crossing the Minnesota River.

DULUTH, MINN.—Bids will be received by Odin Halden, County Audr., until June 6 for two bridges, respectively 42 ft. and 70 ft. spans. Alternative bids are asked on steel and on reinforced concrete, for a 14-ft. culvert, 45 ft. long; also for painting with graphite paint about 20 steel bridges in the county, spans of from 35 to 253 ft.

VALLEY, NEB.—The CANTON BRIDGE CO., of Canton, Ohio, has been awarded contract by the County Commissioners for the construction of a new steel bridge over the Platte River here, at $12,628.

FARGO, N. DAK.—Bids are asked by Arthur G. Lewis, County Audr., Cass County, until noon, June 2, for the construction of various bridges, and for repairing bridges and constructing culverts.

ORIN JUNCTION, WYO.—The WISCONSIN BRIDGE CO., of Milwaukee, Wis., has secured from the Colorado & Southern Ry. Co. the contract for two steel spans, 125 ft., over North Platte River, near Orin Junction, and the HINCHMAN-RENTON FIREPROOFING CO., Denver, Colo., the contract for the concrete work. E. F. Vincent, of Denver, is Asst. Ch. Engr.

CHEYENNE, WYO.—Bids are asked by the Laramie County Commissioners until 11 a. m., June 8, for the construction of a wood and timber bridge over Crow Creek, about one-half mile east of Carpenter. C. Edward Artist is County Clk.

FARMINGTON, MO.—Bids are asked until 1 p. m., June 7, by Thomas H. Holman, County Highway Engr., for the construction of four steel bridges.

NEVADA, MO.—We are officially advised that the VINCENNES BRIDGE CO., of Vincennes, Ind., has been awarded contract by the county for one 100 ft. span bridge, 75-ft. approach, in Harrison Township, and one 125-ft. span bridge, 100-ft. approach, in Lake Township, at $7,100.

***ST. LOUIS, MO.—Plans and specifications are on file at the office of Engineering News, New York, for the removal of the present wooden bridge on Kingshighway and the construction of the foundations and concrete work of a concrete viaduct in Kingshighway from Manchester Ave. to McRee Ave. Bids are asked until June 21.**

*FORT SMITH, ARK.—The Fort Smith and Van Buren District, Roy M. Johnston, Secy., will receive bids until 2 p. m., June 13, for the substructure and erection of the superstructure; the superstructure delivered and erected of a bridge over the Arkansas River, between Fort Smith and Van Buren, Ark. The bridge consists of nine 196-ft. spans carrying double track electric railway and a single track railway on a paved roadway between trusses, two paved roadways, and two sidewalks on cantilevers outside trusses. Piers and abutments will be sunk by the pneumatic process. Steel, about 4,000 tons. Masonry, about 10,000 cu. yds.

DENISON, TEX. — The WISCONSIN BRIDGE & IRON CO., of Milwaukee, Wis., has the contract for constructing the bridge over the Red River for the Missouri, Oklahoma & Gulf R. R. The steel for the bridge will arrive the early part of June, it is stated.

COLORADO, TEX.—The County Commissioners have awarded the contract for one 80-ft. and three 60-ft. steel bridges to the PENN BRIDGE CO., of Beaver Falls, Pa.

TACOMA, WASH.—The City Commission has instructed H. C. Raleigh, City Engr., to prepare plans for a vertical lift bridge across Puyallup waterway. Estimated cost, $140,000.

CENTRALIA, WASH.—Bids will be received until 2 p. m., June 4, by the Board of County Commissioners of Lewis County, for furnishing complete with necessary tubes two steel bridges, according to plans and specifications filed in the office of the County Engineer, one a 100-ft. span to be delivered at Winlock, Wash., the other 120-ft. span to be delivered at Sopenah, Wash.

CORVALLIS, ORE.—F. A. ERIXSON has been awarded contract for the construction of the piers on which the Bary's River steel bridge, at the south end of Third St. will rest at $6.90 per yd. Estimated total cost of work, $5,000.

CELILO, ORE.—Contract was awarded on May 12 to PORTER BROS., of Spokane, Wash., for the substructure of the bridge to be constructed across the Columbia River here for the Oregon Trunk Line. This project was noted on May 12 under Railways.

METZ, CAL.—Bids are asked until 2 p. m., July 6, by T. P. Joy, Clk. Bd. of Supervisors, for the construction of a bridge across the Salinas River near here, in King City Road District, Monterey County.

LOS ANGELES, CAL.—The Board of Supervisors will receive bids until 2 p. m., June 6, for a pile trestle bridge over San Dimas Wash in Lake Ellen St. C. G. Keyes is County Clk.

SAN FRANCISCO, CAL.—Bids have been opened as follows by the Board of Public Works for construction of the Mission viaduct: Keystone Construction Co., $104,000; Metropolis Construction Co., $106,990; Foster & Voght, $109,997. The Metropolis Construction Co. was the lowest bidder for work on the Seventh and Howard Sts. sewer, being approximately $165,000, the amount of the authorization requested by the Board from the Supervisors.

OSHAWA, ONT.—Bids will be received until May 28 by William Purvees, Township Clk., Columbus, for constructing two reinforced-concrete bridges, of 32 and 22-ft. spans, near here. Bowman & Connor are Engrs., 36 Toronto St., Toronto.

OTTAWA, ONT.—Plans are being prepared at the Railway Department for the bridge over the Saskatchewan River to be used on the new railway to Hudson's Bay. Bids for the structure will be called for as soon as the drawings are completed. Reports received at the department are to the effect that the work generally is progressing and all of the initial parliamentary appropriation of $300,000 will be spent or contracted for this season.

BUILDINGS.

(* *denotes that this work is advertised in Engineering News.*)

PORTSMOUTH, N. H.—Bids were received as follows on May 21, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for remodeling and fireproofing Building No. 20 at the Portsmouth Navy Yard, Portsmouth, N. H.: James E. Leany & Co., Larned Bldg., Syracuse, N. Y., Item 1, $53,824, (2) $50,624, (3) $34,963, (4) $31,763, (5) $42,549; C. M. Leach, P. O. Box 2285, Boston, Mass. (1) $58,883, (2) $55,683, (3) $40,500, (4) $37,500; James Marcelle, 17 Russell St., Portsmouth, N. H. (1) $41,657 (conditional), (2) $38,957, (3) $28,607, (4) $25,907; H. P. Converse & Co., 88 Broad St., Boston (1) $43,400, (2) $39,700, (3) $29,200, (4) $25,800, (6) $400; Noel Construction Co., Fidelity & Guarantee Bldg., Baltimore (1) $46,420, (2) $43,100, (3) $34,000, (4) $31,550; Conners Bros. Co., Lowell, Mass. (1) $53,250, (2) $50,250, (3) $38,000, (4) $35,000, (7) $1,200.

BOSTON, MASS.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, has awarded contract for the construction of the foundations, sub-basement, basement stairs and first floor of the Boston custom-house building to NORCROSS BROS. CO., Worcester, Mass., at $278,500. Time to complete, Feb. 1, 1911.

After the removal of the 6-story building at 35 to 39 Batterymarch St. and the adjoining 5-story building numbered 45 to 49, an 11-story office building will be erected. This new building will be an addition to the present Oliver Building. The building will be near the corner of Milk St. The structure will be an office building entirely, and will be of the same design and height as the present Oliver Building, to be connected with it on each floor. The construction will be of brick and steel, with a brick and terra cotta front. Parker, Thomas & Rice are Archs., 110 State St. The cost is estimated at $350,000.

PROVIDENCE, R. I.—Only one bid, that of MITCHELL NICHOLSON, opened on May 16 for the construction of a new school building in the Ninth Ward, was within the amount remaining of the appropriation, and he received the award. The bids were as follows: Mitchell Nicholson, $57,979; Patrick Corrigan, $64,076; W. A. Borden, $64,227; Puleston & McDougall, $67,459; Michael McNally, Treasurer of McNally Construction Co., $65,317. There is remaining of the appropriation for a new school house in Ward 9 the sum of $61,000. Work on the new school will begin at once, the contracts having been signed.

NEW YORK, N. Y.—The New York, Westchester & Boston Ry. Co., of New York, N. Y., plans to build stations at the following places, and bids for the work will soon be asked for:. Morris Park, Pelham Parkway, Allerton Ave., Dyer Ave., Gunhill Road and Baychester Ave., in the Bronx; South Third Ave., East Sixth St., Lincoln Ave., Fulton Ave. and Columbus Ave., in Mount Vernon; one at North Pelham, Pelhamwood, at Webster Ave. and North Ave., in New Rochelle, and at New Rochelle proper. Mace Moulton, 22 William St., New York, is Ch. Engr.

Plans have been filed with the Buildings Superintendent for erecting a 4-story building for the School of Philosophy on the grounds of Columbia University, on the west side of Amsterdam Ave., 89.2 ft. north of 116th St., between Kent Hall and St. Paul's Chapel, on the block with Fayerweather Hall and Schermerhorn Hall. The facade will be of limestone, with probably an ornamental arched entrance door. In the basement will be the electric laboratory and engine room. The four floors will contain several libraries, offices, lecture rooms, dramatic rooms, etc. McKim, Mead & White, Archs., 160 Fifth Ave. Estimated cost, $250,000.

Euell & Euell, Archs., 3694 Broadway, have filed plans for a 6-story apartment and store building for 58 families, at the southwest corner of Amsterdam Ave. and 175th St., fronting 90 ftfl on the avenue and 150 ft. on the street. The T. J. McGuire Construction Co. is the owner, and the cost is placed at $300,000.

NEW YORK, N. Y.—Plans have been filed for a 12-story loft and store building to be built at 50 to 54 West 17th St. for the Widbern Realty Co., at a cost of $200,000. The building will have a frontage of 66 ft. and a depth of 84 ft., with an extension 46 × 8 ft., the facade being of brick with limestone and terra cotta trimmings. James F. Connell is Arch.

The Executive Committee of the Armory Board, subject to the approval of the full board, and later of the Sinking Fund Commission, has selected a site for an armory for the Eighth Regiment on the unused tract of the Jerome Park Reservoir, in the Bronx, owned by the city. The plot selected is 1,000 ft. long and 600 ft. deep, on which it is proposed to build a structure with a frontage of 600 ft. on Jerome Ave. and running back 300 ft. The site is at Jerome Ave., Kingsbridge Road and Reservoir Ave.

Plans have been filed for a 19-story brick store and office building to be erected at the northwest corner of Fifth Ave. and 26th St., for the Croisic Realty Co., Louis M. Jones, Pres., at a cost of $700,000. The facade will be of brick with trimmings of granite, limestone and terra cotta. It will have a frontage of 56.6 ft. on Fifth Ave. by 127.6 ft. on the street. Frederick C. Browne is Arch., 143 West 125th St.

Hardman, Peck & Co., piano manufacturers, 138 Fifth Ave., have secured from the U. S. Trust Co., Trustee, the premises 433 Fifth Ave., and will erect thereon a 6-story building, costing about $100,000. The building will be designed by Francis G. Stewart and Harry Allen Jacobs, Archs., 320 Fifth Ave. The exterior will be in Italian style, in white marble, with a colonnade on the second floor, separated by columns of Pavanava marble. Between these columns will stand large, carved marble boxes for flowers. The walls and ceiling of the entire ground floor will be built of Caen stone. The ceilings will be in stone and a circular marble stairway will run up to the second floor. Over this stairway will be a dome of leaded glass, lighting the rear of the showrooms.

NEW YORK, N. Y.—Plans have been filed with the Building Bureau for a 12-story fireproof mercantile building to be built at 14 to 18 East 32d St. for the Geraty Construction Co. The building will have a frontage of 65.6 ft. and a depth of 90 ft., with a facade of brick with trimmings of limestone and terra cotta, and the cost is estimated at $250,000. William H. Birkmire, 306 Broadway, is Arch.

A 9-story fireproof apartment house, to accommodate 18 families, is to be built on the south side of 58th St., 203 ft. east of Seventh Ave., with a frontage of 42 ft. and depth of 85.5 ft., for George D. Waring, at a cost of $100,000. The facade will be of brick, with limestone and terra cotta trimmings. Charles E. Birge is Arch., 29 West 34th St.

C. Ambrosius, Arch., 5 E. 42d St. has filed plans for a 6-story brick tenement house to be erected on the west side of Attorney St., 66 ft. north of Division St., with a frontage of 49.8 ft. and a depth of 87 ft., with accommodations for 22 families. The cost is estimated at $42,000. Louis Roossini is the owner of record.

David Stewart has sold for Ehler Osterholt the northwest corner of Amsterdam Ave. and 156th St., a plot fronting 99.11 ft. on the avenue and 125 ft. on the street. The buyer is the De Leon Realty Co., Harry Aronson, Pres., which will build on the site two 6-story apartment houses, with stores, from plans by Maximilian Zipkes, Arch., 353 Fifth Ave. The houses are to cost about $200,000, and will accommodate 60 families.

The De Leon Realty Co. is also having plans drawn by Mr. Zipkes for three 5-story houses on the northwest corner of Crotona Ave. and 183d St., 80 × 100 ft., to cost about $100,000.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Dept. of Education, until 11 a. m., June 6, (1) for alterations, repairs, etc., at Public Schools Nos. 60, 77, 82, 124, 130, 131, 136, 142, 146 and Manual Training High School, Boro. of Brooklyn; (2) for sanitary alterations at Public Schools Nos. 10, 11, 15, 32, 52, 58, 111 and Commercial High School, Boro. of Brooklyn.

SCHENECTADY, N. Y.—We are officially advised that schools are to be built here this summer. John Bolan is City Clerk.

FORT PORTER (Buffalo post-office), N. Y.—Bids are asked until 11 a. m., June 4, by Lieut. Benjamin F. Castle, Q. M., for construction, including plumbing, heating and electric wiring of one gymnasium and post exchange building at Fort Porter, N. Y.

*NIAGARA FALLS, N. Y.—Bids are asked by Edward H. Perry, Superintendent of the State Reservation, Niagara Falls, N. Y., until noon, June 4, for the construction complete, including plumbing and electric work, of public comfort station No. 1 on Goat Island, State Reservation, Niagara Falls, N. Y. Franklin B. Ware, Albany, is State Arch.

CAMDEN, N. J.—J. E. & A. L. PENNOCK, Land Title Bldg., Philadelphia, have a contract for a 3-story addition, 96 × 48 ft., with a wing, 28 × 27 ft., to the Cooper Hospital in Camden. The cost will be $50,000.

PITTSBURG, PA.—GEORGE W. HOLLAR, Northside, has secured the contract for the $45,000 brick parochial school to be built on Elizabeth St., near Second Ave., for St. Stephen's Roman Catholic Congregation.

PHILADELPHIA, PA.—We are officially advised that plans have been completed by Carl P. Berger, Arch., Penn Sq. Bldg., for the necessary improvements to the old House of Refuge property, on the block bounded by 22d St., Girard Ave. and Poplar St., to fit it for the use of the Lankenau School for Girls of the Mary J. Drexel Home. The whole plot, measuring 221 × 681 × 717 ft. is to be rebuilt. The property was bought a year ago. The former administration building, south and west wings, are to be remodeled. The north wing is to be torn down and a new and larger building, for bathing, recreation and dressing rooms, an auditorium, with stage and dormitories, will be erected on the site. Cost, $100,000. The architect and A. Raymond Raff are taking bids. Noted last week.

PHILADELPHIA, PA.—Bids are asked by Col. F. L. Denny, Q. M., Washington, D. C., until 11 a. m., June 6, for furnishing and installing mechanical equipment in the extension to Marine Barracks, Navy Yard, Philadelphia, Pa.

Plans have been prepared by L. C. Hickman, 328 Chestnut St., for the erection of an apartment house at the northwest corner of 37th and Ludlow Sts., for Rees Welsh. It is estimated that the cost will be about $300,000.

PHILADELPHIA, PA.—E. F. Fonder, Land Title Bldg., was the lowest bidder on May 23 for the erection of a police station which the city will build on 28th St., north of Oxford St. The station will be a 2-story structure, 38 × 130 ft., and will be the headquarters for a new police district to be created out of the 29th Ward, which includes the territory between Poplar St. and Montgomery Ave. west of 23d St. The bids submitted were as follows: E. F. Fonder, $64,994; Wayne Contracting Co., $71,564; John R. Wiggins & Co., $79,400; J. G. Doak & Co., $81,443; John H. Jordan, $81,849, and Henry E. Baton, $81,946.

HARRISBURG, PA.—A contract to build 2-story addition, 61 × 60 ft., to the Pennsylvania R. R. Co. station at Harrisburg, has been awarded to JACOB MYERS & SON, Witherspoon Bldg., Philadelphia, at $75,000.

WASHINGTON, D. C.—Bids are asked by the District Commissioners, until 2 p. m., May 27, for sites for school buildings and grounds adjacent to school buildings and site for engine house in the following localities: School site, north of O St., west of North Capitol St. and east of Seventh St. and Georgia Ave.; school site, west of Soldiers' Home grounds, east of Sherman Ave. and New Hampshire Ave., south of Rock Creek Church Road, and north of Girard St., approximately 40,000 sq. ft.; additional ground in the immediate vicinity of the Orr School; additional ground adjacent to the Ivy City school, approximately 32,000 sq. ft.; additional ground adjoining the Brookland School, approximately 7,500 sq. ft.; engine house site in the vicinity of Rock Creek Church Road and Georgia Ave. N. W.

Estimates of $220,000 for the enlargement of the Patent Office, of $2,500 for steel stacks for the scientific library of the Patent Office, and of $80,000 for the enlargement of the heating plant of the Freedmen's Hospital and Howard University have been submitted to the Senate. Congestion at the Patent Office is cited by officials of the Interior Department as showing the need for the enlargement of its present quarters. It is proposed to excavate the interior court of the Patent Office to the level of the basement floor and to erect a 1-story structure over the entire court. It is then proposed to build in the center of the court a 4-story building, which will contain 32 rooms, 17 × 35 ft., for the accommodation of about 300 employes. The improvements in the heating plant at the Freedmen's Hospital and Howard University are to cost $80,000. About $65,000 of the amount is to be spent for the installation of electrical machinery to furnish light and power for both institutions.

RICHMOND, VA.—We are officially advised the city will erect an auditorium to cost $45,000. Ben T. August is City Clerk; Charles E. Bolling is City Engr.

ROANOKE, VA.—J. P. PETTYJOHN & SON, of Lynchburg, Va., have been awarded the contract for the erection of an office building at the Norfolk & Western machine shops. The building will cost $45,000 and will be three stories and fireproof. C. S. Churchill, Roanoke, Va., is Ch. Engr.

HIGH POINT, N. C.—Bids were received as follows on May 17 at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at High Point, N. C.: R. H. Richardson Sons Co., Hampton, Va., $56,563; Richardson & Burgess, Inc., 1413 H St. N. W., Washington, $61,960; King Lumber Co., Charlottesville, Va., $66,900; Central Carolina Construction Co., Greenboro, N. C., $80,000; Ambrose B. Stannard, St. James Bldg., New York, $63,630; Richard E. Heningham, 1 Madison Ave., New York, $67,150; Hazard Bros., New York, $68,290; Holland & Crouse, Greensboro, N. C., $68,150; James Seay & Co., Petersburg, Va., $65,000; E. Hart, Norfolk, Va., $67,592. Time, July 1, 1911.

*AIKEN, S. C.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 24, for the construction, complete, (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Aiken, S. C.

CLEVELAND, TENN.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of the post-office building at Cleveland, Tenn., to RICHARDSON & BURGESS, INC., 1413 H St., N. W., Washington, $43,775; time, June 1, 1911. A list of bids was given on May 12.

CATLETTSBURG, KY.—Bids were received as follows on May 19 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Catlettsburg, Ky.: Henry A. Bishop, 115 Adams St., Chicago, $99,975; John G. Unkefer & Co., Minerva, Ohio, $94,852; Hazard Bros., New York, $98,806; Richard E. Heningham, 1 Madison Ave., New York, $96,546; King Lumber Co., Charlottesville, Va., $100,000; M. Yeager & Son, Danville, Ill., $99,890; Barnes Bros., Manchester, Va., $102,000; Edward Henry, Tipton, Ind., $92,500.

AKRON, OHIO.—The bids, which were received recently for the construction of the Children's Home were: Hunt & Wrigley, $46,490; George Crisp & Son, $48,320; John Crisp & Son, $54,726. The bids on the plumbing work were: H. P. Cahill, $6,940; Akron Plumbing & Heating Co., $6,985; Kraus & Kirn, $6,787.

DELAWARE, OHIO.—Bids were received as follows on May 23 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Delaware, Ohio: M. P. Wells, Witherspoon Bldg., Philadelphia, $63,777; John G. Unkefer, Minerva, Ohio, $57,484.

OTTAWA, OHIO.—The following bids for the construction of the proposed court house after plans by Frank L. Packard, Hayden Bldg., Columbus, have been received: George Fieck, Sandusky, $184,268; Henry Shenck Co., Erie, Pa., $204,494; George A. Abernethy, Third and Broad Sts., Columbus, $180,500; Concrete Construction Co., Pittsburg, concrete construction, $191,200; R. H. Evans & Co., Columbus, $177,931; Henry Van De Horst, Kalamazoo, Mich., $209,627; Henry Karg & Stienel, Columbus, $183,450; Francis Bros. Co., 165½ North High St., Columbus, $197,720; W. W. Layster, Dayton, $190,350; Nichol & Carr, Columbus, $193,700.

COLUMBUS, OHIO.—Frank L. Packard, Arch., Hayden Bldg., is preparing plans and specifications for a building at the Ohio State University, to be known as Science Hall. The building will be 78 × 128 ft.

The Board of Education of Columbus, Ohio, has awarded the contracts for the erection of two new school buildings and an addition to the Reeb Ave. building as follows: FRANCIS BROS. CO., 165½ North High St., Heyl Ave. building, $92,750; FRANCIS BROS. CO., West Broad St. building, $92,750. The contract for the Reeb Ave. addition was awarded in separate bids, as follows: JOHN PUGH, excavation, $2,423; FRED WITTENMEIER, cut stone, $3,082; F. M. FORNOFF, brick work, $9,700; H. C. HOWELL, basement floor, $1,557; L. I. TARBERT, plastering, $1,272; D. W. STAHL, blackboards, $400; KLEINLEIN & BENNIGNUS, galvanized iron, $2,559; NICHOL & CARR, carpenter work, $5,795; COLUMBUS HEATING & VENTILATING CO., heating and ventilating systems, $2,023; WUELLNER & THEADO, plumbing, $2,232; A. E. EIGENSEE & CO., marble and tile work, $2,481; McKEEVER ELECTRIC CO., electrical work, $674; J. M. & W. WESTWATER, lighting fixtures, $839; C. E. MORRIS & CO., structural steel, $5,791. A full list of bids for this work was given last week.

Henry Pirrung and A. H. Huston, owners of the lot on North High St., formerly occupied by the plant of the Buckeye Buggy Co., are preparing to erect a number of structures on the site. One of the buildings will be five stories high and entirely fireproof.

GIRARD, OHIO.—The general contract for the erection of a 5-story brick building, planned by Angus Wade, Arch., Stambaugh Bldg., for the Ohio Leader Co., at Girard, has been let to the HELLER BROS. CO. Contract price is $50,000.

KOKOMO, IND.—Bids were received as follows on May 20, by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, for the construction of a post-office building at Kokomo, Ind.: P. H. McCormack Co., Peru, Ind., $68,621; August Ohm, Terre Haute, Ind., $62,875; Ed. Henry, Sault Ste. Marie, Mich., $66,620; Christ Kanzler & Son, Evansville, Ind., $70,000; Barnes Bros., Manchester, Va., $64,900; F. M. Roode & Co., Tipton, Ind., $66,000; Bedford Stone & Construction Co., Indianapolis, Ind., $63,000; Moore & Danner, Kokomo, Ind., $57,493; James de Vault, Canton, Ohio, $65,798; J. B. Goodall, Peru, Ind., $63,900; J. H. Milliken, Indianapolis, Ind., $60,900; Conners Bros., Lowell, Mass., $67,346.

JASONVILLE, IND.—The School Board, I. I. Padgett, Pres., is asking for bids for the construction of a High School building. The building will be 70 × 80 ft., three stories high and of brick and stone construction.

LOGANSPORT, IND.—A contract for constructing the Pathological building at the Northern Indiana Hospital for the Insane has been let JOHN BARNES, of Mishawaka, Ind. Bids for plumbing, heating and wiring will be received later. The building will be constructed of brick and stone.

NEW ALBANY, IND.—The School Board has ordered plans for the erection of a school house, an addition to one and the repair of three school buildings.

LA FAYETTE, IND.—We are officially advised that plans and specifications are being prepared for the proposed high school building, to cost $200,000. The building will have two stories and basement and will measure 200 × 200 ft. Bids will be asked for in about 60 days. W. B. Ittner, Board of Education Bldg., St. Louis, Mo., is Arch.

NEWCASTLE, IND.—The Commissioners of Henry County have adopted plans for repairs to the county jail and six bridges and culverts. Bids will be in order soon.

LAPORTE, IND.—I. P. Norton will ask for bids for the construction of 3-story brick apartment building on Jefferson Ave. as soon as plans are completed.

INDIANAPOLIS, IND.—Indianapolis Council, Knights of Columbus, has had plans prepared for the new clubhouse, which the council will erect this year, on the east side of Illinois St., north of Walnut St. The building will be six stories in height. The plans have been adopted. The building will have a frontage of 75 ft. and will extend back to the alley. In the basement will be bowling alleys and other club features. Three small stores will occupy a part of the first floor front. The entrance to the building will lead to a lobby. The lodge hall will be on the first floor. It will be about 50 × 72 ft., inside measurement. It will contain a stage and a balcony and will have a seating capacity of 700. The second floor will be devoted to club uses. It will be fitted with library, smoking room, billiard room, cardrooms, parlors, bath, lavatory and lounging room. The third, fourth, fifth and sixth floors will be made into sleeping quarters. Cost, $81,000.

DETROIT, MICH.—We are officially advised that J. Lawson Miller, 15 Goebel Bldg., Detroit, has prepared plans and specifications for an addition to the building occupied by the Sisterhood of St. Vincent, Miss Helen Ryan, Secy., 262 15th St., Detroit. Stock brick, Bedford cut stone, tin roof and electric fixtures will be used in construction. The masonry contract has been let to HORTON & STOVER. No others have been let.

R. E. Raseman, Penobscot Bldg., Detroit, is preparing plans and specifications for a 6-story and basement hotel, 140 × 150 ft., to be located at Woodward and Palmer Aves., Detroit. The architects will take figures about June 1. Construction will be of press and stock brick, Bedford stone, fireproof, with composition roof, galvanized iron skylight, structural iron, hardwood finish, hardwood and concrete floors, marble, mosaic and tile.

BENTON HARBOR, MICH.—We are officially advised that Edwin L. Downs, 9 Jackson Boulevard, Chicago, Ill., has prepared plans on a 2-story bank and office building, 127 × 155 × 104 ft., for the Benton Harbor State Bank, of Benton Harbor, Mich. The building will contain bank chambers, five stores and 32 offices and will cost $40,000. The equipment will cost $10,000. Bedford stone on two sides, buff pressed brick, mill construction, except bank proper, which will be fireproof, structural iron, composition roofing, galvanized iron skylight, mahogany finish, tile and maple floors and electric fixtures will be used in construction. Bids will be received about June 1.

FLINT, MICH.—We are officially informed that bids are asked until noon, May 31, by Clark & Munger, Archs., Shearer Bros. Block, Bay City, Mich., for a 20-room High School, two stories and basement, 137 × 94 ft., for the Board of Education, of Flint, Mich., W. C. Lewis, Secy. Vitrified paving brick, Bedford cut stone, galvanized iron cornice, mosaic tiling and gas and electric fixtures will be used in construction. Cost, $80,000.

GRAND RAPIDS, MICH.—Osgood & Osgood, Widdicomb Bldg., Grand Rapids, Mich., are preparing plans and specifications for a Masonic Home of 150 rooms and to cost $150,000, for the Michigan Masonic Home Association, Rial V. McArthur, Supt., Grand Rapids, Mich. The building is to be of brick, concrete and fireproof construction.

MUSKEGON, MICH.—Robinson & Campeau, Houseman Block, Grand Rapids, Mich., have let the general contract for the Home for the Aged, located at Muskegon, Mich., to APPLEYARD & JOHNSON, Widdicomb Bldg., Grand Rapids. The building is to cost $60,000.

SAGINAW, MICH.—We are officially advised that C. L. Cowles, Chase Block, Saginaw, Mich., has prepared plans and specifications for a 5-story and basement warehouse, 136 × 220 ft., for Symons Bros., 200 North Washington Ave. Local paving brick, mill construction, composition roof, structural iron and gas and electric fixtures will be used in construction. The warehouse will cost $90,000. The excavation and masonry contract has been let to JOHN QUELLMAN, of Saginaw, at $38,238.

CENTRALIA, ILL.—Bids were received as follows on May 18 at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Centralia, Ill.: S. Legried, Centralia, Ill., $64,300; Hiram Lloyd Building & Construction Co., Odd Fellows' Bldg., St. Louis, $59,902; Hanson Bros., 59 Dearborn St., Chicago, $54,993; W. M. Allen Sons & Co., Peoria, Ill., $59,800. Time, July 1, 1911.

*GREENVILLE, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 30, for the construction complete, including plumbing, gas piping, heating apparatus, electric conduits and wiring, of the U. S. post-office at Greenville, Ill.

CHICAGO, ILL.—E. Eiger & Bros., 1249 Wabash Ave., have purchased from the estate of Rachel D. Higinbotham the property at the northwest corner of Indiana Ave. and 26th St. The lot fronts 81 ft. on Indiana Ave. and 161 ft. on 26th St., and is now practically vacant. Eiger Bros. have had plans prepared by Alfred L. Alschuler and Martin C. Schwab for a 7-story building, which they will erect for the use of their business, the manufacture of felt hats. The new building will cost probably $200,000.

MILWAUKEE, WIS.—Bishop W. W. Webb has announced that the cloisters at Nashotah House, recently destroyed by fire, causing a loss of $50,000, will be rebuilt; also additions will be made to other buildings.

Plans for the $250,000 central police station and criminal court building as prepared by W. Carbys Zimmerman, Chicago, have been sent to all competing architects by the Board of Public Works. The competition closes on July 19. Following are the four prizes: First, the award; second, $1,000; third, $750, and fourth, $500. The building is to provide, on the first floor, lobby, station keepers' office with vaults and storeroom, captain's and lieutenants' offices, assembly room, surgeons' offices, toilets, 24 ordinary cells, five private cells, garage, electrical department; second floor, offices of chief, secretary and detectives, reception room, women's cell room with six ordinary and four private cells, District Court room with ante-rooms; third floor, patrolmen's quarters, drill room, running track, 200 lockers, shower baths, dormitories, photographer's department, electrical department. Contracts will be let immediately after the plans are accepted.

EAU CLAIRE, WIS.—The International Harvester Co. has purchased a site in this city upon which a $75,000 building will be erected.

SUPERIOR, WIS.—Specifications for a dormitory to be built at the Superior Norman School are being prepared by the members of the Executive Committee of the Normal School Regents in this city.

TRIPOLI, IOWA.—The Shores Remedy Co. of Tripoli will erect a 3-story reinforced concrete fireproof building, 120 × 140 ft., to cost $75,000.

MANKATO, MINN.—Chandler & Park, Archs., 400 Main St., Racine, Wis., are preparing plans and will supervise the construction of an $80,000 school building at Mankato, Minn.

MINNEAPOLIS, MINN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 27, for the construction (including plumbing) of the U. S. post-office at Minneapolis.

R. J. CHENEY & CO. have been awarded the contract and will begin work soon on the proposed building for W. S. Nott & Co. at Third St. and Second Ave. N., plans for which were drawn last year, but the construction of which was postponed. It is expected that the building will be ready for occupancy before the end of 1910. It will be six stories high, of steel and concrete construction, will cover 166 × 132 ft., and will cost $150,000. Kees & Colburn, Donaldson Bldg., are Archs. Occupants of several small buildings on the site who have no leases have been notified to vacate at once, that the work of excavating for the foundation may begin.

*PLATTSMOUTH, NEB.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 28, for the construction complete (including plumbing, gas piping, heating apparatus and electric conduits and wiring), of the U. S. post-office at Plattsmouth, Neb.

LANDER, WYO.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building at Lander, Wyo., to TOM LOVELL & SONS, of Dallas, Tex., at $99,343. Time, Sept. 1, 1911.

CLINTON, MO.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 23, for the construction, complete, (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Clinton, Mo.

DALLAS, TEX.—The FRED A. JONES BUILDING CO. has been awarded the contract for the structural steel for the 12-story building to be erected on Main St. by H. L. Edwards and Guy Sumpter, of Dallas, and F. J. Phillips, of Greenville. The amount of the contract is $80,000. The cost of the completed building will be about $450,000. The contract for the general structure will be let about June 18. The building will be 100 × 190 ft. and will contain 440 offices.

HOUSTON, TEX.—The Houston-Bay Shore Traction Co., Houston, Tex., which will build an electric railway between Houston and La Porte, proposes to erect a passenger station at South Houston and six cement passenger and express depots along the line.

EL PASO, TEX.—We are officially advised that the contract for the 12-story reinforced concrete building which Gen. Anson Mills, of Washington, D. C., will erect in El Paso, has been awarded to H. L. STEVENS & CO., of El Paso. Approximate cost, $300,000.

Trost & Trost, Archs., El Paso, are drawing plans for an apartment house which is to be built on site of Carnegie apartment house. The building will be fireproof and cost $50,000.

SEATTLE, WASH.—Plans are being prepared by W. D. Van Siclen, Arch., New York Block, for a 5-story store and apartment building, to be erected on the northwest corner of Pine St. and Terry Ave., for M. J. Strong. The structure will cost approximately $55,000. Figures on the general construction contract will be taken at once.

BAKERSFIELD, CAL.—C. J. LINGREN has secured the contract for the erection of the Redlick building, at $71,000.

FRESNO, CAL.—The Fresno Hotel Association will soon receive bids for the construction of a $200,000 hotel building. Plans are being prepared by E. T. Foulkes, Arch., Crocker Bldg., San Francisco. A. V. Lisenby of Fresno is Secy. of the company.

FAIRFIELD, CAL.—Bids are asked by the Board of Supervisors of Solano County, until June 6, for construction of a 3-story courthouse, to be erected here. The building will be of brick and terra cotta and will cost $350,000. Hemmings & Jones, 1005 K St., Sacramento, Cal., are Archs.

SAN FRANCISCO, CAL.—A Class A apartment house will be erected for the William Wolf Investment Co. on the north line of Bush St., 50 ft. east of Mason St., which will cost $90,000. It will be six stories high and will contain 140 rooms. The building will be provided with an elevator and dumb waiter. The plans have been prepared by the Pacific Architectural & Engineering Co.

Plans have been made by Edward A. Schumacker, Arch., for the Pockwitz-Rebman building, to be erected at the southwest corner of East and Market Sts. It will cover a lot 45.10 × 137.6 ft. The building will be a 2-story and basement brick structure, containing twelve stores and 25 offices. The foundation will be on piles. The basement will be of concrete and the frame of the building steel. The exterior walls will be cream colored brick. Oregon pine will be used as the interior finish throughout. All the floors will be tiled. It is specified that the store must be completed and ready for use on July 4, there is a bonus of $200 for each day gained in construction. The estimated cost is $50,000. McLAUGHLIN & WALSH are the contractors.

An 8-story, Class A hotel and apartment building, to be known as the Florence Apartments, will be erected in Bush St., between Grant Ave. and Powell St., on a lot 137 × 137 ft. A garden space and walks 8 ft. wide will be left on each side. The exterior walls will be of buff brick and terra cotta trimmed with granite base. Half of the space will be in two and three room suites and baths and the remainder will be of three and four-room apartments with kitchen and bath for each. Charles E. Hughes is Arch.

Application has been made by the Wilcox Realty Co. to the Board of Public Works for a permit to erect a business building on Mission St. It is to be of brick, Class C construction, and will stand on the southeast line of Mission St., 75 ft. southwest of Third St. The cost is to be $40,800, the building, when completed, to be devoted to stores underneath and a loft above. It will be two stories in height.

Plans for the John Swett, the Harrison and the Lincoln Schools have been approved by the Board of Education. The John Swett School will be located on McAllister St., between Franklin and Gough Sts. It will contain twelve rooms, and cost about $85,000. The Lincoln School, on Harrison St., near Fourth St., will contain twelve rooms, and cost about $77,000. The Harrison School will be a small building of six rooms, located at Jamestown and Railroad Aves. The cost will not exceed $20,000.

SAN JOSE, CAL.—The Native Sons Association invites architects to submit plans and specifications for a 3 or 4-story lodge building, to cost $50,000, and to be built of brick, etc. Thomas Monahan is Pres., and H. B. Tripp, Secy.

SAN DIEGO, CAL.—The general contract for the erection of the Crane Hotel has been awarded to the SAN DIEGO CONSTRUCTION CO., at $100,000. It is to be six stories high, fireproof, and 50 × 100 ft. Crane Bros., owners; Quayle Bros., Archs., Granger Bldg., San Diego. The building will be constructed of brick and steel. It will have two passenger elevators, steam heat and a vacuum cleaning system.

John D. Spreckels has acquired 50 ft. fronting on D St. at the corner of Second St., and will extend the Union Building so as to cover the entire frontage on D St., between Second and Third Sts. The 50 ft. acquired is occupied by a 4-story frame hotel, which is to be removed. Mr. Spreckels announces that the annex to the Union Building will cost $90,000.

LOS ANGELES, CAL.—Plans for a theater which is to be erected on South Spring St., costing about $250,000, have been prepared by A. L. Haley, Arch., Citizens Bank Bldg. The design has been approved by the Shuberts, theatrical managers, for whom the playhouse is to be built. The building will be of reinforced concrete, fireproof and three stories high.

The general contract for the erection of a 6-story hotel building at the corner of Fifth and Olive Sts., has been awarded by the owner, R. D. Wade, to the SEELEY CONSTRUCTION CO., Bumillier Bldg. Cost, $144,750. Neher & Skilling are Archs., Pacific Electric Bldg.

Final preparations are being made to begin Aug. 1 the construction of a 12-story office building to cost more than $1,000,000 at the northeast corner of Spring and Fifth Sts. The tenants of the Chester Building have been notified to vacate by Aug. 1, on which date the demolition of the structure will be begun. The CHESTER FIREPROOF BUILDING CO. will erect the office structure, which will be called the "Chester Building." It will have more than 500 offices on the upper floors. The first floor ceiling will be 25 ft. in height. The manner of dividing the first floor space has not been determined. The building will have a frontage of 100 ft. on Spring St. and of 160 ft. on Fifth St. In the rear will be a wing, 60 ft. wide and 240 ft. long, with an alley on the east side. The principal elevator entrance will be on Spring St. The building will be of steel and will be a Class A structure. The exterior will resemble that of the Security Building. Construction will be completed in about 18 months after Aug. 1. The site of the building was leased for 50 years from the Jones Estate. The officials of the Chester Fireproof Building Co. are: A. C. Bilicke, Pres.; J. S. Torrance, Vice-Pres. These and the following are the directors and stockholders: J. F. Sartori, E. J. Marshall, James H. Adams, R. A. Rowan and M. S. Hellman.

TORONTO, ONT.—Bids are asked until noon, May 27, by W. C. Wilkinson, Secy.-Treas. Bd. of Education, Toronto, for enlargement of Huron St. School, and alterations to Malvern Ave. High School, Duke St. and Crawford St. schools.

Also, bids are asked until noon, May 30, for erection of a school building, Elizabeth St. and enlargement of Roden School and York St. School.

Bids are asked by E. J. Lennox, Arch., 164 Bay St., Toronto, until May 28, for the erection of a steel constructed, fireproof warehouse building for Hobberlin & Co., at the corner of Yonge and Richmond Sts., and also for the necessary alterations and additions in connection with the renovation of the adjoining buildings.

OTTAWA, ONT.—Bids are asked by Napoleon Tessier, Secy. Dept. of Public Works, Ottawa, until 5 p. m., June 14, for construction of an addition to the Eastern Departmental Building, Ottawa.

VERA CRUZ, MEX.—See item under Water Supply-Irrigation.

WATER-SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

WATUPPA (Fall River post-office), MASS.—Contract for furnishing the 6,000,000-gallon high-duty pumping engine, bids opened on April 22, has been awarded by the Water Board to H. R. WORTHINGTON CO., New York, at $33,000, including foundation, and the company will allow $1,000 for old pump. List of bidders noted on May 5.

NEW BRITAIN, CONN.—The contract for constructing the high pressure pipe line has been awarded to BERNARDINOO SILVESTRI & CONTI, Hartford, at about $8,000.

HARTFORD, CONN.—The Board of Water Commissioners has voted to lay an 8-in. main in Warren St. and a 12-in. main in Sanford St.

BLACK RIVER, N. Y.—We are officially advised that the Board of Water Commissioners are now ready to receive bids for the pipe, pump, gasoline engine, hydrants, valves and other supplies for a water-works system for Black River, plans for which were approved on May 21 by the State Water Supply Commission. H. C. Dexter is Secy. Comrs.

BROOKLYN, N. Y.—Bids were received as follows on May 10 by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, for hauling and laying water mains and appurtenances in the Boro. of Brooklyn: (a) Section 1; (b) Section 2: Leo E. Kelley, (a) $24,958, (b) $14,956; Henry E. Fox, (a) $34,957, (b) $19,124; Robt. Carter & Co., 551 Prospect Pl., Brooklyn, (a) $21,463, (b) $11,531.

NEW YORK, N. Y.—The FOX-HENNESSEY CO., 81 East 12th St., has been awarded contract for laying water mains in the city. Bids were opened April 28.

NEW YORK, N. Y.—We are officially advised that contract has been awarded to the CRANFORD CO., 52 Ninth St., Brooklyn, by the Department of Water Supply, Gas and Electricity, for furnishing, delivering and laying high-pressure service mains and appurtenances in the Gowanus and South Brooklyn districts at $497,697. Bids were opened on May 11. List of bidders noted on May 19.

*NEW YORK, N. Y.—Bids were received on May 24, by the Board of Water Supply, for Contract 80, for the construction of the Breakneck tunnels, portions of the Hudson River division of the Catskill aqueduct, comprising about 710 ft. of plain concrete conduit known as aqueduct in open cut or cut and cover aqueduct, 17 ft. high by 17 ft. 6 ins. wide inside, and a tunnel on the hydraulic gradient about 1,055 ft. long, 17 ft. high by 13 ft. 4 ins. wide inside, connecting by a shaft about 500 ft. inside diameter and about 700 ft. long. The work is located in the towns of Fishkill, Dutchess County, and Phillipstown, Putnam County. The lowest bidder was the Dravo Contracting Co., Lewis Block, Pittsburg, Pa. Bids were received at the same time for Contract 44, for furnishing, delivering and installing six 6-ft. by 15-ft. sluice-gates, 25 5-ft. by 13-ft. sluice-gates, four 5-ft. by 8-ft. back pressure sluice-gates, seven 5-ft. by 8-ft. sluice-gates, six 5-ft. by 6-ft. sluice-gates, three 4-ft. by 5-ft. sluice-gates, eight 3-ft. by 5-ft. sluice-gates, three 30-in. by 42-in. sluice-gates, two 18-in. by 24-in. sluice-gates, with operating mechanisms; two sets of drive-shafting and all appurtenances, complete, and in every respect ready for use, at Ashokan, Kensico and Hill View reservoirs, and in various structures along Catskill aqueduct. These bids had not been tabulated prior to the time of going to press.

*HARRISON, N. Y.—Bids are asked by the Board of Water Commissioners until 4 p. m., June 14, for constructing a water-supply system. For details see advertisement in this issue.

*NEWBURGH, N. Y.—Bids will be received by the Board of Water Commissioners until 7 p. m., June 6, for the completion of the contract for the raising of an earth dam and roadway, building concrete masonry, stone rip-rap walls and slope paving and other work incidental thereto, consisting of about 4,000 cu. yds. earth excavation, 37,000 cu. yds. earth embankment, 3,450 cu. yds. puddle wall, 4,250 cu. yds. broken stone lining, 11,000 sq. yds. slope paving, 550 cu. yds. rip-rap walls, 500 cu. yds. concrete masonry and other work. Plans and specifications can be seen and blank forms of proposal obtained at the office of the City Engineer, or at the office of the Board of Water Commissioners. Curtis Stanton is Supt. W.-wks.

PLEASANTVILLE, N. Y.—See item under Sewerage.

BLAUVELT, N. Y.—We are officially advised that the contract for drilling a well at the state rifle range here has been awarded by Franklin B. Ware, State Arch., Albany, to T. W. RAYMOND, of Thiells, N. Y.

COMSTOCK, N. Y.—The bids received by C. V. Collins, Supt. of State Prisons, Albany, after informal invitation, for plumbing, drainage and water supply at the Great Meadow Prison at Comstock, on May 18, were: L. F. Bannon Plumbing, Heating & Lighting Co., Kingston, N. Y., $47,440; W. B. Armstrong, Albany, $50,899; H. C. Peterson, Utica, N. Y., $39,680; Edward Joy Co., Syracuse, N. Y., $58,825. F. B. Ware is State Arch.

ITHACA, N. Y.—We are officially advised that the city will extend and improve the water system. Bids will probably be asked within two months. Estimated cost, $150,000. Donald F. McLeod is City Engr.

OGDENSBURG, N. Y.—We are officially advised that the city will construct a filtration plant. Estimated cost, $175,000. The date for receiving bids has not yet been set. George A. Tate is City Engr.

GENEVA, N. Y.—We are offically advised that the city proposes to construct a filtration plant and extend the water mains. Estimated cost, $90,000. James Brennen is City Engr.

RAHWAY, N. J.—Bids are asked by Decatur M. Sawyer, Pres. New Jersey Reformatory, Rahway, until 3 p. m., June 9, for the construction of one or more driven wells, the number to be determined upon after the completion and testing of the first well.

DUQUESNE, PA.—Bids will be received until May 28 by George Heffrin, Chn. Water Com., for erecting a 2-story brick addition, about 16 × 22 ft., at the borough pumping station. R. B. Dell is Borough Engr.

LANCASTER, PA.—We are officially advised that the city proposes to improve the water system. F. C. Carpenter is City Engr.

*TYRONE, PA.—The Tyrone Gas & Water Co. will receive bids at its office, Tyrone, until 2 p. m., June 10, for the construction of a storage reservoir; also for an addition to its present reservoir known as No. 1. It is estimated that there will be about 100,000 cu. yds. of earth work, about 2,000 cu. yds. of paving, masonry, etc., and about 17 acres of grubbing and clearing and about 7,000 cu. yds. of puddle work. Plans, specifications and information can be obtained at the office of the company after May 27.

SHEPHERDSTOWN, W. VA.—The city contemplates the construction of waterworks, both gravity and pumping systems being proposed. One mile of 8-in., 1¼ miles 6-in., and ¾ mile 4-in. iron pipe, steel standpipe about 14 ft. diameter by 40 to 60 ft. high will be required. Estimated cost, $12,000 to $15,000. U. S. Martin is Mayor.

WINSTON-SALEM, N. C.—The P. H. Hanes Knitting Co. will construct a waterworks system, including brick reservoir of 200,000 gallons capacity, boiler and pump house, 15,000-gallon elevated tank, fire pumps, automatic sprinkler apparatus, etc.

DONALDSONVILLE, GA.—The citizens on May 10 voted to issue $20,000 of bonds for improving the water-works and installing an electric light plant.

DALTON, GA.—The citizens on May 14 voted to issue bonds as follows: Improvements and extension of water-works, $30,000; extension of electric light plant, $20,000; street paving, $25,000; sewer extension, $20,000.

FORT OGELTHORPE, GA.—Contracts have been awarded as follows for boiler house machinery, etc., at Fort Oglethorpe: To GEORGE BECKING, Chattanooga, Tenn., for enlargement and addition to boiler and pump house and installation of machinery at $34,076; to the HENRY VOGT MACHINE CO., of Louisville, Ky., for refrigerating machinery, at $7,185.

The NEWPORT CONTRACTING & ENGINEERING CO., of Newport News, Va., has been awarded contract for the construction of a water distributing system for the maneuver camp at Fort Oglethorpe, at $15,399.

BILOXI, MISS.—The city has awarded contract to the COOPER-GREER CO., Gulfport, Miss., for laying additional water mains. Estimated cost, $5,000.

JACKSON, MISS.—The city has awarded contract to LAYNE & BOWLER, Houston, Tex., for drilling a system of wells which will supply the city with 4,000,000 gallons of artesian water daily. Hamilton Johnson is Mgr. W.-Wks.

NASHVILLE, TENN.—The Board of Public Works on May 12 awarded contract to S. T. STEWART for laying water pipe in West Nashville, at $8,071.

DAYTON, KY.—Bids will be received until June 20 by W. C. Martin, City Clk., for a water-works franchise for a period of 20 years.

MANISTEE, MICH.—Bids were opened on May 5 by the Board Water Commissioners, T. J. Elton, Secy., for constructing a steel water tank, 45 ft. in diameter and 55 ft. high, from the plans of Charles B. Burdick, 1212 Hartford Bldg., Chicago, Ill. Contract has been awarded to the MANISTEE IRON WORKS CO., of Manistee.

*KANKAKEE, ILL.—Bids will be received by the Board of Administration, Springfield, Ill., until noon, June 8, for the erection of a steel water tower and tank at the Kankakee State Hospital, Kankakee. Frank D. Whipp is Fiscal Superv.

NEW BADEN, ILL.—Bids will be received until June 1 for the construction of a system of water-works from the plans of the Fuller-Coult Co., Chemical Bldg., St. Louis, Mo. George Munken is Village Pres.

NORTH CHICAGO, ILL.—Bids are asked by the Bureau of Supplies and Accounts until 10 a. m., June 14, for the construction of extensions to water mains, sewers, drains, heating and electrical distributing mains, and concrete conduit at the U. S. Naval Training Station, Great Lakes, North Chicago. Specifications are on file at the office of Engineering News, New York'

CHICAGO, ILL.—Bids will be received until May 28 by John J. Hanberg, Comr. Pub. Wks., for furnishing material and labor to do all the work, excepting plumbing and heating, in connection with the repairs and alterations to the Chicago Ave. pumping station, Chicago Ave. and Lake Shore Drive.

BURLINGTON, IOWA.—We are officially advised that bids were received by the Supervisors for Des Moines County, D. D. No. 1, at Burlington, Iowa, on May 11, for the pumping station building and station engineer's dwelling, as follows: Traut & McCarthy, Beardstown, Ill., $48,480; Jansen & Zoeller, Pekin, Ill., $55,800; Harney Bros., Aledo, Ill., $48,800; H. A. Beck, Burlington, $53,900; Brewster & Evans, Peoria, Ill., $49,500; John Tifye, Burlington, dwelling only, $4,156.

PERRY, IOWA.—Bids are asked until 7.30 p. m., May 31, by the city for 1,050 ft. of 24-in. pipe, 685 ft. of 18-in. pipe, 250 ft. of 12-in. pipe, 700 ft. of 8-in. pipe and 600 ft. of open ditch, together with manholes and other necessary attachments.

CORYDON, IOWA.—Bids are asked by the town until 7.30 p. m., June 6, for drilling an artesian well. Iowa Engineering Co., Clinton, Iowa, are Engrs.

CALDWELL, KAN.—See item under Sewerage.

MILFORD, NEB.—Bids will be received about July 1 for the construction of waterworks and an electric light plant from the plans of Martz Bros., of Seward. Estimated cost, $20,000.

BELLE FOURCHE, S. DAK.—The report of S. H. Lea, State Engr., Pierre, S. Dak., upon the proposed water-works system, has been adopted by the Council. Estimated cost, $40,920.

FORT MISSOULA, MONT.—See item under Sewerage.

HUNTSVILLE, MO.—Bids will be received until June 14 by the city for the construction of water-works from the plans of L. G. Knapp & Co., New York Life Bldg., Kansas City, Mo. Estimated cost, $25,000 to $30,000.

CONWAY, ARK.—Dickinson & Watkins, Southern Trust Bldg., Little Rock, have been engaged as engineers for the proposed water-works to be constructed here. Estimated cost, $75,000. G. W. A. Wilson is Secy. Water Bd.

PORT ARTHUR, TEX.—The Kansas City Southern R. R. Co., P. H. Harris, Asst. Engr., Port Arthur, has decided to install, it is reported, a fire protection system on its docks here. Estimated cost, $95,000, exclusive of power equipment.

DALLAS, TEX.—Bids are asked by the City Commissioners until May 30 for two air compressors, one for Turtle Creek, and one for Bachman pumping station.

WACO, TEX.—The Water Commissioners have awarded contract to J. S. HARRISON of Waco at about $13,000 for erecting pumping station in East Waco. The structure will be one story, brick, concrete foundation.

*GARVIN, OKLA.—Bids will be received by the town for purchase of said town of two 200-gallon duplex pumps fitted with pressure regulating governors; one triplex pump and motor, and 8,100 ft. of c.-i. water mains; 22 fire hydrants and eight watergate valves. Bids to be addressed to C. M. Carr, Town Clk. Specifications can be had on application to O'Neil Engineering Co., Dallas, Tex.

SEATTLE, WASH.—The Board of Public Works has awarded the following contracts for laying water mains: Second Ave., N. E., and other streets, to the INTERNATIONAL CONTRACT CO., New York Block, Seattle, at $13,264; Howard Ave., North, and other streets, to SANFIELD & GIFFORD, at $7,085. R. H. Thomson is City Engr.

MARYSVILLE, CAL.—The Halwood Irrigation Co., E. E. Long, Secy., has awarded contract, it is reported, to J. WISE for Section 4 of the company's canal.

Bids were opened on five other sections of the above canal and rejected as excessive. New bids will be received. Leslie B. Crook is Engr.

POINT LOMA, CAL.—KNIGHT & HYDE, of San Diego, Cal., have been awarded contract for supplying the ground for the foundation of the steel reservoir tower at Point Loma on a basis of 35 cts. per yd.

REDONDO, CAL.—The Pacific Light & Power Corporation has awarded contract to the MERCEREAU BRIDGE & CONSTRUCTION CO., Pacific Electric Bldg., Los Angeles, for constructing a circulating water system at $6,000.

LOS ANGELES, CAL.—Bids are asked until July 1 by the Board of Public Works for the construction of eleven miles of riveted steel pipe ranging in diameter from 9 to 11 ft. and in thickness of plate from ¼ to 1-in. These syphons will be built along the line of the aqueduct between Los Angeles and Owens Valley.

SALT LAKE CITY, UTAH.—The Secretary of the Interior has awarded contract to the UNION PORTLAND CEMENT CO., of Ogden, Utah, for furnishing 9,000 bbls. of Portland cement for use in connection with the Strawberry Valley irrigation project, Utah. The cement is to be delivered f. o. b. cars at Devils Slide, at $1.40 per bbl.

CALGARY, ALTA.—Contract has been awarded by the Canadian Pacific Ry. Co. for an extension of the company's irrigation system into the eastern section of the irrigation block to JAMES McDONNELL & CO., of Vancouver, B. C., with whom are associated Winter, Boomer & Hughes, and Grant Smith & Co., both firms of Spokane, Wash. The contract is for $5,230,000, and includes canals, requiring the excavation of 28,000,000 cu. yds. of earth. Work will start at once and 540,000 acres will be irrigated.

MADERA (Chihuahua), MEX.—Waterworks and sewer systems are being constructed here. MACMILLAN & CO. have the contract.

ACAPULCO (Guerrero), MEX.—JOHN LEE STARK has the contract for constructing the large system of irrigation which the Pacific Government Lands & Concession Co. is establishing in the state of Guerrero. He has had two engineering corps in the field for some time running the lines for the proposed canals and locating the dams that are to be constructed. More than 22,000 acres of land will be brought under irrigation. The water supply will be obtained from the San Geronimita, Petatlan and Coaquilla Rivers.

OAXACA (Oaxaca), MEX.—The City Council has let contract for the construction of the water-works system for this city to SHOENDUBE & NEUGEBAURER, of Mexico City.

NEW WATER-SUPPLY SYSTEM.—The necessity of a new water-supply system is at present the topic of conversation in a Latin-American city. An American consul reports that municipal and state representatives have recently been in consultation with federal government officials with the object of securing aid in raising $1,000,000 for a new and adequate water-supply system and other contemplated improvements, among which are mentioned a modern abattoir and a public park. Copy of the complete report giving further particulars can be obtained by addressing the Bureau of Manufactures, Dept. Commerce and Labor, Washington, D. C. Refer to file No. 4962.

VERA CRUZ, MEX.—The Department of Finance of the Federal Government has submitted to the National Congress a bill whereby the Federal Government guarantee the payment of a loan not to exceed $4,000,000, out of the customs receipts of the city of Vera Cruz, the money to be used for the enlargement of the water-works of this city and the erection of new public school buildings. The bill provides that the government shall guarantee to the holders of the bonds of the new issue, which will be made as soon as the measure is passed, 1½% of the customs receipts of the Port of Vera Cruz, but the money shall not be available until the City of Vera Cruz pays off the balance of a loan of $4,551,065 contracted July 1, 1902, for sanitary works, and of another of $2,754,400, contracted with the Banco Central Mexicana on May 30, 1906. It is provided, further, that Vera Cruz has until Dec. 31, 1940, to pay off the proposed loan of $4,000,000.

SEWERS.

(* *denotes that this work is advertised in Engineering News.*)

EVERETT, MASS.—We are officially advised that the city proposes to construct a new sewer. Estimated cost, $50,000. Christopher Harrison is City Engr.

*WESTFIELD, MASS.—Bids are asked until noon, June 1, by the Town Clerk, for constructing sewers, the work including about 4,860 ft. of pipe sewer from 6-in. to 20-in. in diameter with manholes and catchbasins. Oren E. Parks is Town Engr.

We are officially advised that contract was awarded on May 18 by the Board of Selectmen to the DAVID W. LEWIS CO., 24 Milk St., Boston, Mass., for furnishing about 7,300 lin. ft. of pipe, from 4 to 20-in. diameter.

ATTLEBORO, MASS.—The town has appropriated $200,000 for the construction of a sewer system.

PAWTUCKET, R. I.—We are officially advised that the city proposes to construct new sewers. George A. Carpenter is City Engr.

PLEASANTVILLE, N. Y.—We are officially advised that plans for sewerage system, sedimentation tanks, sprinkling filters, sand filters and chlorinating plant, prepared by Lederle & Provost, Engs., 39-41 West 38th St., New York, for property of the Hebrew Sheltering Guardian Society at Pleasantville, have been approved by the State Board of Health. Constructions for these works, together with improvements for water supply involivng an aggregate cost of about $60,000 will be contracted for within the next few weeks.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., June 8, by Alfred E. Steers, Boro. Pres., for constructing sewers and sewer basins in various streets.

Bids are asked same time and date for furnishing all labor and material required for repairing and placing in first-class condition two 10,000,000-gallon Worthington sewage pumps, Nos. 1135 and 1136, together with condenser, situated at the 26th Ward disposal works, Hendricks St. near Vandalia Ave., Boro. Brooklyn.

HEMPSTEAD, N. Y.—We are officially advised that Cyril E. Marshall, Engr., Hempstead Bank Bldg., Hempstead, has been selected by the Village Trustees to make the necessary surveys and prepare plans and specifications for sewers and sewage disposal works.

NIAGARA FALLS, N. Y.—The Board of Public Works on May 17, awarded contract to CUSANO & DOWER for the construction of a sewer in Calumet Ave. at $17,892.

SCHENECTADY, N. Y.—We are offcially advised that the city proposes to construct new sewers. T. Leland FitzGerald is City Engr.

JOHNSTOWN, N. Y.—We are officially advised that a new trunk sewer will be constructed by the city. Bids will be asked soon. Estimated cost, $50,000. John Campbell is City Engr.

FULTON, N. Y.—We are officially advised that sanitary sewers will be constructed here. Bids will be asked about July 1. George W. Hackett is City Engr.

UTICA, N. Y.—PERRETTA & ROBERTACCIO, have been awarded contract at $4,066, for the construction of a 21-in. sewer in Lafayette St., from Cornelia St. to Broadway.

MARGATE CITY, N. J.—We are officially advised that bids were received on May 19 by the City Council for the construction of sewerage system complete for a portion of Margate City. The work to be done is as follows: 54,000 lin. ft. of 8-in. terra cotta, 3,200 lin. ft. of 12-in. terra cotta, 1,500 lin. ft. of 15-in. terra cotta sewer pipe; 225 lin. ft. of 8-in. c.-i. pipe; two disposal plants; ten 8-in. bends, five 12-in. bends, five 15-in. bends, twenty 8-in. by 6-in. Ys., five 15-in. by 6-in. Ys, five 15-in. by 6-in. Ys. Contract has been awarded to the ATLANTIC CONSTRUCTION & SUPPLY CO., 232 Bartlett Bldg., Atlantic City, N. J., at $54,162. S. D. Rightmire is City Engr.; Charles Hart is City Clk.

*FREEHOLD, N. J.—Bids are asked until 11 a. m., June 22, by the city for sewerage extensions and pumping stations. The proposed work consists of approximately 18,000 ft. of 8-in. sewers; 3,400 ft. of 4-in. iron pipe force mains; three pumping stations (not including houses and machinery); also manholes, lampholes, flush-tanks, and other appurtenances. Plans and specifications may be seen and blank forms of proposal obtained at the office of the Commissioner, 29 South St., Freehold, and also at the office of Waring, Chapman & Farquhar, Civil Engrs., 874 Broadway, New York.

RIDGEWOOD, N. J.—Bids will be received by the Village Trustees until May 31 for the construction of storm water sewers, to consist of 1,522 ft. of 3 × 5-ft. and 520 ft. of 3 × 4-ft. reinforced concrete sewers, also 3,430 ft. of 36, 30, 24, 18 and 12-in vitrified pipe with necessary manholes, etc. H. J. Harder is Village Engr.

*SUMMIT, N. J.—We are officially advised that bids were received as follows, by the Executors of the W. H. Risk Estate at the City Hall, Summit, on May 12, for the construction of 3,035 lin. ft. of 6, 8, and 10-in. vitrified pipe sanitary sewers, and 2,395 lin. ft. of 8, 10, 12 and 15-in. storm sewers, in the following location: Beacon Road, Fernwood Road and along a proposed new road, also a right-of-way line, and manholes, excavations, etc., necessary to same; also the grading of a proposed new drive, 1,000 ft. long. J. C. Schrade, $13,369; Clark & Co., Ltd., $9,590; Garafano & Mezzano, $8,293; Miele & Bruno, $10,293; Eveline Bros., New Britain, Conn., $10,823.

PATERSON, N. J.—The Board of Public Works on May 19 awarded contract to the WORMSER-GOODMAN CONSTRUCTION CO., 2 Rector St., New York, for the construction of the Lakeview sewer, at $34,907.

TRENTON, N. J.—We are officially advised that the city proposes to construct a sewage disposal and filtration plant. A. Swan, Jr., is City Engr.

*BRIDGETON, N. J.—We are officially advised that bids were received as follows on May 17, by the City Council for furnishing all material and doing all work necessary to the complete construction of about 3.2 miles of vitrified pipe sewers, from 8 to 24 ins. in size, with Y branches, manholes, flushing manholes and other necessary appurtenances, and of a sewage disposal works and pumping station, including the necessary piping, grading, etc.: HUDSON TERMINAL CONSTRUCTION CO., 50 Church St., New York, $40,670 (awarded contract; B. F. Sweeten and Son, Camden, N. J., $48,664; United Paving Co., Atlantic City, N. J., $52,632; Wormser-Goodman Co., New York, $54,532; J. W. Heller, Newark, N. J., $58,936. Clyde Potts, 30 Church St., New York, is Engr.

SHARON, PA.—The plans of C. E. Miller, of Pittsburg, Pa., have been accepted for the construction of a sewage disposal plant.

*MARCUS HOOK, PA.—Bids will be received by the borough addressed to W. E. Mallon, Chn., Sewer Com., for the construction of terra cotta pipe sewers, the erection of a pumping station and the grading and straightening of Market St. until 8 P. M., June 6. Plans and specifications are on file at office of A. F. Damon, Jr., Engr., Post Office Bldg., Darby, Pa., or at the office of John E. McDonough, Rooms 6 and 7 Clayton Bldg., Chester, Pa., Boro. Solicitor.

WILLIAMSPORT, PA.—We are officially advised that the city will construct a sewer in Penn St. Estimated cost, $21,000. J. B. Otto is City Engr.

YORK, PA.—Bids are asked until 4 p. m., June 6, by Harry Wasbers, Chn., Bd. Pub. Wks., for the construction of sewers in various streets.

RICHMOND, VA.—MAYNARD & FORD have secured contract for a trunk sewer from Bacon's Quarter branch to Shepherd St.

We are officially advised that the city proposes to make extensions to the sewerage system. Bids will be asked as soon as surveys have been completed. Estimated cost, $900,000. Charles E. Bolling is City Engr.

NORFOLK, VA.—Bids will be received until June 9 at the office of B. Gray Tunstall, City Treas., for $858,000 bonds, $115,000 for sewerage, etc., in Park Pl., $12,000 for improving streets, etc., in Berkley Ward and $731,000 for improving streets for new high school and various other improvements in the six wards of the city, and for the purchase of sites and erection of buildings in Berkley Ward.

DALTON, VA.—See item under Water Supply-Irrigation.

HUNTINGTON, W. VA.—Bids are asked by the Board of Commissioners until 1 p. m., June 9, for the construction of a lateral sewer. John Coon is St. and Sewer Com.

MACON, GA.—The city proposes to construct about 7¾ miles of pipe sewers in Vineville. C. C. Anderson is City Engr.

NEW DECATUR, ALA.—The city has awarded contract to McPOLAND & O'GARA, New Decatur, for constructing sanitary sewer laterals. Henry Hartung is City Ck.

ATLANTA, GA.—The city has awarded contract to C. W. LANE CO., and to B. E. MEEKS CONSTRUCTION & EQUIPMENT CO., both of Atlanta, for construction of 24,000 ft. of lateral trunk sewers at about $160,000. R. M. Clayton is City Engr.

MEMPHIS, TENN.—The city has awarded contract to ABERNATHY & GARVIN of Memphis, for constructing sewers in Mt. Arlington section of city at $6,643, and to

POUNCEY PAVING & CONSTRUCTION CO., Helena, Ark., for constructing sewers in Klondyke section at $6,071.

JACKSON, TENN.—The city has awarded contract at $26,277 to NEWMAN SEWERAGE CO., Evansville, Ind., for constructing sewers in Southeast Jackson; Atwell Thompson is City Engr.

*LOUISVILLE, KY.—Bids are asked by the Commissioners of Sewerage until noon, June 10, for the construction of Sections "C" and "D," Northeastern Sanitary Trunk Sewers, Contracts 69 and 70. For details see advertisement in this issue.

SANDUSKY, OHIO.—Bids will be received until June 8 by the Board of Public Service John Bing, Dir., for furnishing material and improving portions of Washington, Hancock, Franklin and Warren Sts. by reconstructing and enlarging the lateral sewer; also a separate bid for enlarging and improving another portion of the Franklin St. sewer.

NORWALK, OHIO.—Bids are asked by the city until June 1 for the construction of a new sewer. John Laylin is City Engr.

LUCAS, OHIO.—See item under Streets and Roads.

LORAIN, OHIO.—Bids are asked until noon, June 7, by the Director of Public Service, for constructing sewers in several streets. L. B. Johnston is Clk.

MARBLE CLIFF, OHIO.—Bids will be received until May 31 by C. Newhouse, Village Clk., for constructing a sewage disposal plant and sewer system.

CINCINNATI, OHIO.—The Bd. of Public Works, on May 14, awarded to McCARTHY BROS., 2910 Woodburn Ave., the contract for constructing the Boldface sewer at $113,791.

SPRINGFIELD, OHIO.—Bids will be received by the Director of Public Service until noon, May 31, at the office of the Clerk of the Department of Public Service, for furnishing the necessary labor and material for the construction of a sanitary sewer in Clark St. from Yellow to Miama St., according to the plans and specifications now on file in the office of the Department of Public Service. William H. Mahoney is Clk.

JEFFERSON, OHIO.—Bids will be received by the Council until noon, June 1, for furnishing the necessary labor and materials for the construction of a sewage disposal plant, according to plans and specifications on file in the office of the Engineer. T. B. Miller is Clk.

WARREN, OHIO.—We are officially advised that the city proposes to construct new sewers. E. C. Smith is City Engr.

ELKHART, IND.—The Board of Public Works is preparing to ask for bids for the construction of a large sewer from the Elkhart River east in Jackson St. to the city limits.

LAPORTE, IND.—Bids are asked by the city until June 7 for the construction of five miles of sewers. Ezra Shoecraft is City Engr.

MONROE, MICH.—Bids are asked until May 29, by the Board of Public Works, for the construction of a 10-in glazed tile sanitary sewer in Riverview Ave., commencing at a point in the center of Riverview Ave, 50 ft. south of south line of Noble Ave., thence in a southerly direction in the center of Riverview Ave., to a point where the center lines of Riverview and Elm Aves. intersect, thence southerly on the same course to an entrance into the river basin.

CANTON, ILL.—E. R. HARDING, of Racine, has been awarded a contract for a $50,000 sewer to be built here.

NORTH CHICAGO, Ill.—See item under Bridges.

DE PERE, WIS.—URBIN TITULAER, Green Bay, has been awarded contract at $1.69 per lin. ft., for the construction of the Charles St. sewer and at 47 cts. per lin. ft., for the construction of a sewer in an alley in block 31.

MILWAUKEE, WIS.—The Board of Public Works on May 17, awarded to R. J. HICKEY the contract for building a sewer from Milwaukee and Detroit Sts. to Eleventh Ave. and Scott St., at $23,658. Edward O'Donnell bid $23,961 for the work.

KNOXVILLE, IOWA.—See item under Streets and Roads.

MISSOURI VALLEY, IOWA.—Contract for constructing a system of sewers from the plans of the Iowa Engineering Co., of Clinton, Iowa, has been awarded to the OMAHA CONSTRUCTION CO., of Omaha, Neb., as follows: 84 ft. 18-in. c. i. pipe, $4; 200 ft. 12-in., $2.25; 4704 ft. 18-in., $1.03; 390 ft. 15-in., 77 cts.; 2770 ft. 12-in., 57 cts.; 7774 ft. 10-in., 54 cts., and 17,534 ft. 8-in., 46 cts.; 64 manholes, each $35; a bulkhead, $100, and 1000 ft. ¾-in. galvanized pipe, 25 cts.; total, $24,184. Other bids were: J. J. Dunegan, Shenandoah, $26,483; J. W. Turner Improving Co., Des Moines, $26,640; McKay & Cathroe, Omaha, $26,783; O'Farrell Contracting Co., Dubuque, $27,285; R. C. De La Hunt, Cedar Rapids, $27,338; The Lytle Construction Co., Sioux City, $28,252; Lang Construction Co., Harlan, $28,355; Independent Construction Co., Davenport, $28,372; B. J. Sweat, Boone, $28,792; Fraser & Danforth, Rochester, Minn., $30,042; The Elkhorn Construction Co., Fremont, Neb., $31,439. Engineers' estimate, $26,000. Bids were opened on May 4.

CALDWELL, KAN.—Bids will be received until June 1 by J. R. Swartzee, City Clk., for furnishing material and constructing a complete sewerage system and disposal plant; also furnishing f. o. b. cars Caldwell c.-i. pipe and special castings, hydrants and valves; laying c.-i. pipe and setting hydrants and valves; hauling and laying c.-i. pipe and setting hydrants and valves, for water-works, extensions.

WICHITA, KAN.—McINTYRE & TEESE, of Wichita, have secured contract for the construction of the following laterals to the College Hill sewer: District "A," lateral between Douglas Ave. and Kellogg St., and from Grove St. east to the city limits at $48,331; District "B," lateral between Second St. and Douglas Ave., from Grove St., east to the city limits, $14,620; District "C," lateral between Second St. and Central Ave., from Ash St. to city limits, $20,844.

W. F. HALL, Clinton, Mo., has secured contract for the construction of the following laterals to the College Hill sewer: District "E," main sewer, north on Eleventh St., $6,196; District "F," between Hillside Ave. and Wellesley St., from 12th St., to Fairmont Ave., $9,078; lateral "G," on Estelle and Hillside Aves., Eleventh and Fourteenth Sts., $8,458.

BROKEN BOW, NEB.—The City Council has selected the W. K. Palmer Co., Dwight Bldg., Kansas City, Mo., to prepare plans for a sewer system for Broken Bow. Estimated cost, $35,000.

MANDAN, N. DAK.—Bids were opened on May 9 by the city for the construction of a sewer system, from the plans of R. E. Wickham, of Grand Forks. Contract has been awarded to JAMES KENNEDY, of Fargo. Estimated cost, $50,000.

FORT MISSOULA, MONT.—Bids are asked until 9 a. m., June 6, by Maj. A. B. Shattuck Constructing Q. M., U. S. A., for the construction of a sewer system, a water distributing system, furnishing and erecting a 300,000-gallon tank of steel and 100 ft. trestle, the construction proper of a reinforced concrete pumping station, supply and installation of all boilers, steam pumps, valves, etc.

ST. LOUIS, MO.—McCARTHY BROS., 2910 Woodburn Ave., Cincinnati, Ohio, have been awarded contract by the Board of Local Improvements for the construction of the Riber de Pierre sewer at $1,978,400. W. B. Dryden is Secy. Bd.

MORRILTON, ARK.—Bids for the construction of a sewer system here were opened on May 16. Contract was awarded to J. M. McCOPPIN, of Little Rock, Ark., at about $15,000.

BELTON, TEX.—Bids will be received by the Belton Sanitary Sewer Co., J. M. Frazier, Pres., until June 14, for furnishing material and constructing a system of sanitary sewers and a sewage purification plant. Fountain-Shaw Engineering Co., Andrews Bldg., Dallas, are Engrs.

MADILL, OKLA.—Bids were opened on May 9 for the construction of a sewer system from the plans of the Southwestern Engineering Co., of Oklahoma City. The lowest bid was that of the Tonkawa Construction Co., as follows: 2325 ft. 15-in. pipe, 73 cts.; 400 ft. 12-in., 67 cts.; 7475 ft. 10-in., 51 cents.; 8685 ft. 8-in., 42 cts.; 850 ft. 6-in., 41½ cts.; 45 manholes, each $25 and $35; four lampholes, each $5; six flush tanks, each $65; one purification plant, $4,288; total, $16,051. Other bids were: Stokes Construction Co., $18,266; P. J. Meredith & Co., $18,579; J. E. McMillan Co., $17,661.

OKLAHOMA CITY, OKLA.—Bids are asked by the city until May 31 for extension of East Side sanitary sewer, main storm sewer in Brauer Ave. and Fourth St., and lateral sewers in Block 1, Caldwell's Third Addition to Oklahoma City, and Blocks 19 and 20 original of Capitol Hill. Bob Parman is City Clk.

VANCOUVER, WASH.—Bids are asked until June 15, by the City Clerk, for the construction of the "B" St. lateral. The work includes 600 ft. of 10-in. and 2,000 ft. of 8-in. vitrified pipe and eleven manholes. Estimated cost, $7,000. H. H. Lotter, Vancouver, is Engr.

SEATTLE, WASH.—Contract for the construction of sewers in First Ave., N. E., and other streets has been awarded by the Board of Public Works to KROGH & JESSEN, at $15,676. R. H. Thomson is City Engr.

R. H. Thomson, City Engr., has estimated the cost of constructing sewers in 35th Ave., West, and other streets at $40,000, and in 26th Ave. and other streets at $20,000.

SAN FRANCISCO, CAL.—The Board of City Supervisors on May 12 passed an ordinance providing for the construction of sewers in Seventh St., from Howard to Hubbell Sts. Estimated cost, $170,000. Marsden Manson is City Engr.

OROVILLE, CAL.—P. A. Haviland, of Alameda, Cal., has been selected to prepare plans for the construction of the proposed sewer system. E. J. Mitchell is City Clk.

SAN LUIS OBISPO, CAL.—Bids will be received by the Board of City Trustees until 7.30 p. m., May 31, for the following sewer work for the city: For furnishing the material called for in the specifications therefor entitled "Specifications for San Luis Obispo Sewer Extension Division D, 1909," in accordance with the plans for such sewer work entitled "San Luis Obispo Sewer Extension Plans 1 and 2, 1909." W. J. Miles is Clerk.

ROSEVILLE, CAL.—See item under Light and Power Plants.

ALAMEDA, CAL.—We are officially advised that the city proposes to construct a new sewer. Time for receiving bids has not been set. Estimated cost, $30,000. I. N. Chapman is City Engr.

MONTREAL, QUE.—Contracts for the construction of sewers amounting to $159,385 were awarded on May 18 by the Board of Control to M. DINEEN, 460 St. Antoine St., and L. GIGUERE & CO., while one contract was held back because there was only one bid, which was $25,000 more than the estimated cost. The contract for the trunk sewer in Laurier Ward, from the head of St. Lawrence St. to the Back River, was awarded to L. GIGUERE & CO., who were the lowest bidders at $115,655. M. DINEEN was the successful bidder for No. 3 section of the Sherbrooke St. sewer, from St. Lawrence to Bleury St. There was only one bid for No. 6 section of the Sherbrooke St. sewer, from Drummond to Guy St., from M. Dineen, at $90,660. The estimated cost of the city engineers for the work was $65,000, so it was decided not to award the contract.

TORONTO, ONT.—Bids are asked until noon, May 31, by G. R. Geary, Mayor and Chn. Bd. of Control, for constructing sewers in various streets.

CELAYA (Guanajuato), MEX.—In response to the request of the State Government of Guanajuato, the Superior Board of Health has commissioned its engineer, Miguel de Quevedo, of Mexico City, to make an investigation of the situation here with the view of adopting plans for the construction of a sanitary and sewer system. It is reported that the expense for the proposed improvement will be borne by the state.

GARBAGE DISPOSAL.

(* *denotes that this work is advertised in Engineering News.*)

BOSTON, MASS.—Bids are asked until 11 a. m., June 18, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for a refuse kiln at the navy yard, Boston.

BRIDGEPORT, CONN.—Bids are asked until 4 p. m., June 1, by the Board of Health for the disposal of garbage and dead animals for periods of three, five, ten and 20 years. Any bidder may make a proposal for any one of said terms or for all. George Eugene Ober is Pres. Bd. This is an extension of date from May 23.

LONG ISLAND CITY (L. I.), N. Y.—Bids are asked until 11 a. m., June 1, by Lawrence Gresser, Pres. Boro. of Queens, for the final disposition of garbage in the Fifth Ward of the Borough of Queens, of the City of New York, during the months of June, July, August and September, 1910, and furnishing and operating the necessary dumps, scows, tugs, tools, appliances and labor therefore.

NEW YORK, N. Y.—Bids are asked by Calvin Tompkins, Comr. of Docks, until 11 a. m., June 4, for Contract No. 1228, for furnishing all the labor and materials required for furnishing carts with horses and drivers for disposing of street sweepings from piers and water-front property in the Boroughs of Manhattan, The Bronx, Brooklyn and Queens.

TOLEDO, OHIO.—Bids will be received at the office of the Director of Public Service until noon, June 10, for the disposal of the city's garbage. Fred Shane, 223 Valentine Bldg., is Secy.

COLUMBUS, OHIO.—Contract for the construction of the garbage collection stables has been let to PATRICK SHANAHAN. The estimated cost is $40,000. The bid was slightly below that amount.

LOS ANGELES, CAL.—Bids will be received by the Board of Public Works until May 27 for furnishing teams, drivers, sweeping machines and other equipment for cleaning paved streets of city for a period of three years, beginning July 1. H. B. Ferris is Secy. of Bd.

STREETS AND ROADS.

(* *denotes that this work is advertised in Engineering News.*)

CONCORD, N. H.—Bids are asked until 1 p. m., June 8, by H. C. Hill, State Engr., for constructing a native stone road of six miles in Wakefield.

CONCORD, N. H.—Bids are asked by H. C. Hill, State Engr., until 1 p. m., June 3, for constructing 4,000 ft. of native stone road in Hinsdale.

TAUNTON, MASS.—We have been officially advised that permanent street improvement, to cost $40,000, will be made in Taunton, under the supervision of Joel Thayer, Supt. of Streets. Alonzo K. Crowell is City Engr.

EVERETT, MASS.—Charles Bruce, Mayor, advises us that this city will expend $60,000 for street improvements, to be done by day labor. The work will be in charge of C. A. Libby, Supt. of Paving and Sewers. Christopher Harrison is City Engr.

BROOKLINE, MASS.—The contract for paving 8,800 sq. yds. with granite blocks on a compressed concrete foundation on Harvard and Beacon Sts. has been awarded to the SIMPSON BROS. CO., 166 Devonshire St., Boston, at $28,702. E. A. McEttriok is Secy. Bd. of Selectmen.

NORWALK, CONN.—Leeman M. Burndage, Mayor, informs us that contracts will be let at once for brick paving, to cost $10,000. Charles N. Wood is City Engr.

NEW HAVEN, CONN.—All proposals for laying sidewalks were rejected by the Director of Public Works and new bids will be asked for.

NEW HAVEN, CONN.—Bids for the following pavement work will be received by the Committee on Permanent Pavements until 10 a. m., June 4: State St., from Chapel to Water Sts., granite and wood blocks; Grand Ave., granite blocks and granitoid; Dixwell Ave., wood blocks and granitoid; Gregston St., wood blocks and granitoid; Congress Ave., granite and wood blocks; Commerce St., old Belgian blocks.

WATERBURY, CONN.—Bids will be received by the Board of Public Works, Leavenworth St., until 8 p. m., May 31, for constructing macadam pavement on Hamilton Ave.

The Board of Public Works is having plans prepared for grading Jefferson St.

HARTFORD, CONN.—Contracts for the construction of state road work, bids for which were opened May 23, have been awarded by the State Highway Commissioner as follows:

Town of Woodbridge, 10,160 lin. ft. macadam-telford road on the Litchfield Turnpike, including one 15-in., two 18-in., one 24-in. and five 12-in. tile culverts and one 12-in. iron culvert, to F. ARRIGONI & BRO., Durham, Conn., $1.78 per lin. ft. for macadam, $2.39 for telford and $1 per lin. ft. for rubble drain. Other bidders were: B. D. Pierce, Jr., Co., Bridgeport, Conn., $2.27, $2.95 and 65 cts.; Roger Kennedy, Middletown, Conn., $2.97, $3.57 and $1; O. T. Benedict, Pittsfield, Mass., $2.19, $2.79 and 80 cts.; C. W. Blakeslee [illegible] Sons, New Haven, Conn., $2.37, $2.87 and [illegible]1.75.

Town of North Canaan, 3,400 lin. [illegible] macadam-telford road on the Norfolk Turnpike, including one 15-in. tile culvert, to JOHN VAN DUSEN, Canaan, Conn., $1[illegible] for macadam, $1.65 for telford, 90 cts. [illegible] rubble drain. Merritt & Bush, Stamford, Conn., submitted these figures, macadam, $2[illegible], telford, $2.80, rubble drain, $1.

Town of Middlebury, 6,415 lin. ft. [illegible]raded road, including one 12-in. tile pipe [illegible]vert, to EDWARD McMANUS, Waterbury, [illegible]onn., $10,989 for grading, $1.80 per lin [illegible] for telford, $1.78 per lin. ft. for rubble [illegible]rain. Other bidders were: Ahern Bros., N[illegible]wich, Conn., $15,000, 80 cts., $1.25; B. D. [illegible]erce, Jr., Co., Bridgeport, Conn., $15,973[illegible] 48 cts., 75 cts.; E. G. Pardee, Bethany, [illegible]onn., $15,331.85, 65 cts., 65 cts.

NEW YORK, N. Y.—Bids are asked by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., June 8, for regulating, grading and paving various streets in Brooklyn.

Bids are asked by the Park Board until 3 p. m., June 9, for furnishing and delivering Hudson River road gravel in parks and on parkways in the Boroughs of Brooklyn and Queens.

Bids are asked by E. V. Frothingham, Comr. of Public Works, until 2 p. m., June 2, for regulating, paving, etc., various streets in the Borough of Manhattan.

Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, May 31, for regulating, grading, paving and repairing various streets in the Borough of Richmond.

NEW YORK, N. Y.—The following bids were received on May 18 by the President of the Borough of Brooklyn, for regulating and repaving with asphalt on a concrete foundation the roadway of Berkeley Ave., from Sixth Ave. to Plaza St.: Barber Asphalt Paving Co., 30 Church St., New York, $12,417; Uvalde Asphalt Paving Co., 1 Broadway, New York, $14,648; Cranford Co., 52 Ninth St., Brooklyn, $13,789; Brooklyn Alcatraz Asphalt Paving Co., 407 Hamilton Ave., Brooklyn, $14,819.

Regulating and repaving with asphalt on a concrete foundation the roadway of Lincoln Pl., from Rochester Ave. to Eastern Parkway: Uvalde Asphalt Paving Co., $10,417; Barber Asphalt Paving Co., $10,282; Cranford Co., $10,508; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $11,271.

Regulating and repaving with asphalt on a concrete foundation the roadway of Bedford Ave., between North Twelfth St. and Manhattan av.; Driggs Ave., between North Twelfth St. and Lorimer St.; Lorimer St., between Driggs Ave. and Bayard St.; North Twelfth St., between Bedford Ave. and Union Ave.; Union Ave., between Roebling St. and Driggs Ave.: Barber Asphalt Paving Co., $29,039; Uvalde Asphalt Paving Co., $32,591; Cranford Co., $29,704; Borough Asphalt Co., $30,682.

Regulating and repaving with asphalt on a concrete foundation the roadway of 58th St., from Sixth Ave. to Seventh Ave., and 60th St., from Third Ave. to Fourth Ave.: Cranford Co., 52 Ninth St., Brooklyn, $11,039; Barber Asphalt Paving Co., 30 Church St., New York, $10,413; Brooklyn Alcatraz Asphalt Paving Co., 407 Hamilton St., Brooklyn, $11,422; Uvalde Asphalt Paving Co., 1 Broadway, New York, $11,961.

Regulating and repaving with asphalt on a concrete foundation the roadway of 28th St. and 30th St., from Third Ave. to Fifth Ave.: Cranford Co., $19,776; Barber Asphalt Paving Co., $19,373; Brooklyn Alcatraz Asphalt Paving Co., $20,726; Uvalde Asphalt Paving Co., $21,545.

Regulating and repaving with asphalt on a concrete foundation the roadway of McKibbin St. and Eiegel St., from Bushwick Ave. to White St.: Uvalde Asphalt Paving Co., $12,802; Barber Asphalt Paving Co., $12,283; Cranford Co., $13,096; Borough Asphalt Paving Co., 1301 Metropolitan Ave., Brooklyn, $13,161.

Regulating and repaving with asphalt on a concrete foundation the roadway of Delsmere Pl., Mansfield Pl, and East 25th St., from Foster Ave. to Farragut Road: Barber Asphalt Paving Co., $16,234; Uvalde Asphalt Paving Co., $15,710; Cranford Co., $15,380; Brooklyn Alcatraz Asphalt Paving Co., $17,098.

Regulating and repaving with granite on a concrete foundation the roadway of Third St., from Smith St. to Fifth Ave.: Leo E. Kelly, 189 Montague St., Brooklyn, $49,378; M. F. Hickey Co., Second Ave., Brooklyn, $50,216.

Regulating and repaving with granite on a concrete foundation the roadway of Tenth St., from West St. to Ninth Ave.: Leo E. Kelly, 189 Montague St., Brooklyn, $19,482; R. A. Russell, $18,566; M. T. Maher, $17,914; Williamson & Connell, $19,227; Henry P. George, $18,514; O'Grady Bros., 69 North Eighth St., Brooklyn, $18,234.

Regulating and repaving with granite, on a concrete foundation the roadway of Joralemon St., from Hicks St. to Furman St.: Leo E. Kelly, 189 Montague St., Brooklyn, $10,582; Norton Gorman, $10,119.

Regulating and repaving with granite, on a concrete foundation the roadway of Johnson Ave., from Knickerbocker to Flushing Ave.: H. P. George, $42,884; Newman & Carey, 215 Montague St., $41,177; Richard L. Russell, $43,298; O'Grady Bros., $47,078; Charles A. Meyers, $38,904.

Regulating and repaving with granite, on a concrete foundation the roadway of Grand St., from Cooper St. to Bushwick Ave.: H. P. George, $37,789; Richard L. Russell, $38,966; Matthew T. Maher, $35,531.

NEW YORK, N. Y.—The following bids were received on May 17 by George Cromwell, Pres. Boro. of Richmond, for furnishing all the labor and materials required for regulating and repaving with wood block pavement on a concrete foundation the roadway of Canal St., from City Dock to Broad St., together with all work incidental thereto: U. S. Wood Preserving Co., 165 Broadway, New York, $26,298; Cornelius Vanderbilt, $27,303; Lendine & Galle, $29,849; Joseph Johnson's Sons, $28,926; Barber Asphalt Paving Co., 30 Church St., New York,

$28,245; Uvalde Asphalt Paving Co., 1 Broadway, New York, $27,466; D. Bonnacci, $29,2[illegible]; Republic Construction Co., $27,969.

YONKERS, N. Y.—Bids are asked until June 6 by the Board of Contract and Supply, we are officially informed, for widening Dock St. John A. Brady is Comr. of Pub. Wks.; Samuel L. Cooper is City Engr.

LOCKPORT, N. Y.—We are officially informed that the city contemplates constructing cement sidewalks, the work to be under the charge of J. W. Johnston, Supt. of Streets. J. F. Frehsee is City Engr.

NEWBURGH, N. Y.—It is proposed to pave Water and Colton Sts., in Newburgh, we are officially advised. William J. Blake, Jr., is City Engr.; Max E. Bastran is Supt. of Streets.

*WATERTOWN, N. Y.—Bids are asked by E. W. Sayles, City Engr., City Hall, Watertown, until 8 p. m., June 3, for furnishing and placing about 55,000 ft. B. M., of timber and plank treated with creosote or other preservative and for furnishing and placing about 1,200 sq. yds. of wood block pavement on the viaduct over the railroad tracks in Arsenal St., and for furnishing the paint and for painting all the iron and steel work in the above named structure.

ALBANY, N. Y.—The bids received by the Board of Contract and Supply on May 16 for the improvement of Colonie St., from Swan St. to Lark St., were: James F. Campion, $26,663; Edward F. Dillon, $29,588; John M. Holler, $24,159; Michael F. Dollard, $25,641; Mulderry Bros., $25,234. For the improvement of Bertha St., from Second Ave. to Delaware Ave.: Mulderry Bros., $12,789; James F. Campion, $11,434; Edward F. Dillon, $13,469; John M. Holler, $11,608; Michael F. Dollard, $12,346. The bidders are all of Albany, N. Y. Isidore Wachsman is Secy.; Walter Melius is City Engr.

BINGHAMTON, N. Y.—The Board of Contract and Supply on May 14 awarded contracts for paving as follows: Main St., to A. D. OSBORN, using Mack block, 14,590 sq. yds., at $1.96 per sq. yd.; Front and Washington Sts., to TYNE & WILLEY, for Mack block, 9,430 sq. yds., at $1.95 per sq. yd. The prices include excavation of old concrete base and old asphalt top, 6-in. concrete base (new), 1½-in. sand cushion and pitch expansion joints along curb line. J. A. Giles is City Engr.

DUNKIRK, N. Y.—Bids will be received by the Common Council until June 2 for resurfacing with sheet asphalt West Fourth St. J. M. Hackett is City Engr.; R. H. Heppell, City Clerk.

ROCHESTER, N. Y.—The Board of Contract and Supply has awarded contracts for street improvements as follows: WHITMORE, RAUBER & VICINUS, 279 South Ave., Mt. Hope Ave., asphalt and Medina block pavement, at $24,545; Oakland St., brick pavement, $9,678; Federal St., brick pavement, $18,567.

PLATTSBURG, N. Y.—We are officially informed that bids will be called for soon for improving Margaret St. at a cost of about $10,000. Harry Langlois is City Engr.

BUFFALO, N. Y.—The following bids for paving and repaving streets were opened on May 17 by Francis G. Ward, Comr. of Public Works: Bryant St., from Main to Delaware Ave., Barber Asphalt Paving Co., asphalt, $7,290; Michigan St., German Rock Asphalt & Cement Co., asphalt, $15,830; Krettner St., German Rock Asphalt & Cement Co., asphalt, $10,870; Grey St., Genesee to High, Henry P. Burgard, asphalt, $4,950; alley off Cherry St., Barber Asphalt Paving Co., asphalt, $2,013.

*BURLINGTON, N. J.—Bids are asked by Harry E. Dubell, Director of the Bd. of Chosen Freeholders of the County of Burlington, the Road Committee and the County Collector, Mount Holly, Burlington County, until 11 a. m., June 13, for building a gravel road from Gardner's Corner, beginning at the end of the Indian Mills gravel road and running southerly to the Atlantic County line at Atsion in the County of Burlington, a distance of 4.26 miles. Earl Thomson is County Engr., 11 East Central Ave., Moorestown, N. J., and 301 Market St., Camden, N. J.

*ELIZABETH, N. J.—We are officially advised that bids were received by the County Road Committee of the Board of Chosen Freeholders of the County of Union, at the Court House, Elizabeth, on May 18, for the construction of a stone road on (a) Raritan Road and Lake Ave., extending from Terrill Road to Palisade Ave. in the Townships of Fanwood and Clark. The length of said road is 2.465 miles and the width of stonework 16 ft. Also for constructing a stone road on (b) Madison Hill Road and Palisade Ave. extending from Lake Ave. to Westfield Ave. in the Township of Clark and the City of Rahway. The length of said road is 2.388 miles and the width of stonework 16 ft. F. J. Hubbard is County Engr., 201 Park Ave., Plainfield:

McGovern Contracting Co., Trenton, N. J., macadam, with asphaltum binder, (a) $41,106; (b) $39,164.

C. H. Winans & Co., Linden, N. J., macadam, with asphaltum binder, (a) $39,236, (b) $38,494; with Amiesite surface, (a) $52,142, (b) $51,764; with Warrenite surface, (a) $51,664, (b) $50,849; with Filbertine surface, (a) $54,532, (b) $53,366; with Headley road binder surface, [Bermudez] (a) $42,104, (b) $41,239; [Texas] (a) $41,387, (b) $40,782.

Weldon Contracting Co., Rahway, N. J., macadam, with asphaltum binder, (a) $32,469, (b) $30,982; with Amiesite surface, (a) $41,073, (b) $39,219; with Warrenite surface, $44,658, (b) $42,651; with Headley road binder surface, (a) $34,620, (b) $33,042.

Standard Bitulithic Co., 253 Broadway, New York, macadam, with Warrenite surface, (a) $46,636, (b) $44,464.

At the same time the following bids were received for macadamizing (c) Shunpike Road, 1.48 miles, and (d) Springfield Ave. and Turkey Road, 1.96 miles: McGovern Contracting Co., Trenton, with asphaltum binder, (c) $43,555, (d) $29,372.

C. H. Winans & Co., Linden, N. J., asphaltum, (c) $41,421 or $1.09 a sq. yd., (d) $32,388 or $1.29 a sq. yd. Amiesite surface, (c) $1.65, (d) $43,179; Warrenite surface, (c) $1.57, (d) $41,252; Filbertine surface, (c) $1.65, (d) $44,142; Headley road binder surface, [Bermudez] (c) $1.17, (d) $35,857; [Texas] (c) $1.19, (d) $35,228.

Welden Contracting Co., Rahway, N. J., asphaltum, (c) $31,944, (d) $25,383; Amiesite surface, (c) $37,333, (d) $31,742; Warrenite surface, (c) $41,391, (d) $34,440; Headley road binder surface, (c) $32,964, (d) $27,310.

Standard Bitulithic Co., 253 Broadway, New York, Warrenite surface, (c) $47,193, (d) $34,034.

Bamberger & Chapman, Newark, N. J., asphaltum, (d) $32,296; Amiesite surface, (d) $35,093; Warrenite surface, (d) $46,748; Filbertine surface, (d) $53,493; Headley road binder surface, (d) $37,113.

TRENTON, N. J.—The Board of Chosen Freeholders on May 10 awarded contracts for road improvements as follows: FRED CLYMER, resurfacing Princeton-Kingston Road, with asphaltum oil, $7,600; J. F. SHANLEY & CO., 26 Exchange Pl., Jersey City, with asphaltum oil, White Horse Road, $18,605; BARRETT CONSTRUCTION CO., with asphaltum oil, Windsor Hightstown Road, $16,098.

BELVIDERE, N. J.—Bids will be received until May 28 by the Board of Chosen Freeholders at Belvidere for constructing a macadamized road from Buttzville to the town line of Belvidere, a distance of about $19,418 ft. J. R. Thatcher, of Washington, is Dir.

*FREEHOLD, N. J.—Bids are asked by the Board of Chosen Freeholders until 11 a. m., June 15, for improving Main and South Sts. in Freehold. G. K. Allen, Jr., is Engr.; William B. Conover is Dir.

CARNEGIE, PA.—Bids are asked by M. M. Everly, Chn. Street Com., until 7.30 p. m., May 27, for repaving, redressing and resetting curbs on Midland Ave., from Dick St., to 444 ft. west.

CARLISLE, PA.—We are officially advised that a quantity of street paving will be done in Carlisle this year. C. A. Bingham is City Engr.

*HYDE PARK, PA.—Bids will be received by the Borough of Hyde Park, Pa., until 7 p. m., June 9, for the following work, approximately 1,900 cu. yds. grading, 4,300 lin. ft. concrete or sandstone curb, and 5,750 sq. yds. vitrified brick or block paving. Robert H. Wilson is Engr., Saltsburg, Pa.

HANOVER, PA.—We have been officially informed that about two blocks will be paved in this city. The City of Hanover will do the work. Adam E. Kohr is City Engr.

PHOENIXVILLE, PA.—In about ten days we are informed, bids will be asked for paving East Bridge St., at a cost of $14,000. The work will be done under the charge of the Street Committee, John Davis, Chn. John H. Harden is City Engr.

POTTSVILLE, PA.—We are officially informed that street paving, to cost $60,000, will be undertaken in this city. William S. Pugh is City Engr. and Supt. of Streets.

BALTIMORE, MD.—The Board of Awards on May 11 awarded contracts for brick paving as follows: Philadelphia Road and Fayette St., to GEORGE LONG CONTRACTING CO., First St. and First Ave., at $25,438; also Canton St., at $4,272; and to P. F. REDDINGTON, 321 St. Paul St., work on Hollins St., at $9,932.

FROSTBURG, MD.—Bids are asked until 3 p. m., June 4, by J. S. Metzger, City Clerk, for street improvement here. We are officially informed that the work consists of about 1,325 ft. of street work, 32 ft. wide. William Harvy is City Engr.

*WASHINGTON, D. C.—Bids are asked by the District Commissioners until 2 p. m., June 4, for laying cement sidewalks in the District of Columbia.

ROANOKE, VA.—We are officially advised that sidewalks will be laid and macadam constructed on certain streets in this city. F. L. Gibbony is City Engr.

RICHMOND, VA.—Bids will be received until June 7, at the office of the County Clerk, Richmond, for constructing 4¼ miles gravel road in this county, on Osborne Turnpike. Separate bids will be received for a reinforced-concrete bridge.

PORTSMOUTH, VA.—We are officially informed that $225,000 of paving is to be done here, and the contracts probably will be let in July. J. W. Wood is Supt. of Streets and V. O. Cassell, Jr., is City Engr.

NORFOLK, VA.—The U. S. WOOD PRESERVING CO., 165 Broadway, New York, has secured contract for paving with wood block on Granby St., at $47,000.

SPOTSYLVANIA, VA.—W. A. Harris, Secy. Spots County Road Comrs., Spotsylvania, advises us that bids are asked by the Board of Public Roads, care of M. B. Rowe, Fredericksburg, Va., until 11 a. m., June 1, for constructing about 35 miles of gravel road, with 14 ft. of gravel in center, 8 ins. thick after rolling with 10-ton roller.

FREDERICKSBURG, VA.—We are officially advised that during the summer and fall extensive work will be done grading and paving certain streets here and laying curbs on same. E. H. Randall is City Engr.; William S. Embrey is Supt. of Streets.

WADESBORO, N. C.—Bids will be received until June 3 by W. K. Boggan, Mayor, and the Town Commissioners for street improvements including 18,000 sq. yds. of 8-in. macadam, using tar or asphalt as a binder; 2,500 lin. ft. of combined concrete curb and gutter; 6,000 sq. yds. of cement sidewalk; 4,000 cu. yds. of excavation. White & Platt, of Durham, N. C., are Engrs.

DALTON, GA.—See item under Water Supply—Irrigation.

FORT BARRANCAS, FLA.—Bids are asked by the Constructing Q. M., until 11 a. m., June 15, for resurfacing the roadway from Bayou Grande to the Barrancas National Cemetery.

MEMPHIS, TENN.—H. P. STREICHER & CO., Spitzer Bldg., Toledo, Ohio, are stated to have secured the contract for paving street in Memphis at $1.22 per sq. yd., or a total of $350,000.

Contracts for paving Rayburn Boulevard, from Calhoun St. to McLemore Ave., and McLemore Ave., from Rayburn Boulevard to Mississippi Boulevard, were awarded on May 17 to the BARBER ASPHALT PAVING CO., 30 Church St., New York, by the City Commissioners. Both thoroughfares are to be paved with lake asphalt, the first at a cost of $22,449 and the second for $21,983. They were the lowest bids made.

LOUISVILLE, KY.—The Board of Public Works has awarded contracts for constructing granitoid pavements at a total cost of $69,000. The awards and the streets to be improved are as follows: The MARION COUNTY CONSTRUCTION CO.—Brook St., Burnett to A St.; Jackson St., Oak to St. Catherine; Cortney St., 26th to 28th St.; Greenwood St., 18th to 21st St.; $1.85 per sq. yd.; total $29,000. The BARBER ASPHALT PAVING CO.—Windsor Pl., Bardstown Road to Baxter; Willow Ave., Slaughter to Longest; Bailey, Frankfort to Cliff; Galt, Payne to Peterson; Peterson, Galt to a point 110 ft. east; $1.97 per sq. yd.; total, $40,000.

MORRISTOWN, OHIO.—Bids will be received until May 28 by W. L. McWilliams, Corporation Clk., for macadamizing a road from the National Pike over the Morristown and Somerton Roads.

BELLEFONTAINE, OHIO.—We are officially advised that bids were received on May 19 for paving, to cost $35,000. The work is in charge of Clair A. Inskeep, City Engr. Hamilton Bros. & Hoskins were the low bidders. The prices follow: Excavation, 25 cts. per cu. yd.; straight curb, 45 cts. per lin. ft.; 17,000 sq. yds. of brick pavement on 6-in. concrete foundation, $1.35 sq. yd.

VAN WERT, OHIO.—We are officially informed that paving to cost $7,000, will be constructed, probably at once. Albert Albright, City Engr., is in charge of the work.

CARROLLTON, OHIO.—Bids are asked by A. K. Rader, City Clerk, until noon, June 23, for grading, draining, curbing and paving various streets in Carrollton.

CANTON, OHIO.—The contract has been awarded for the construction of the Wooster Road to P. DIEFENBACHER & SON, Massillon, Ohio, at $24,626.

COLUMBUS, OHIO.—The contract for paving the driveways around the Cleveland, Cincinnati, Chicago & St. Louis freight depot in Columbus has been awarded to G. W. PATTERSON. The contract calls for approximately 22,000 sq. yds. of paving and 12,000 ft. curb.

YOUNGSTOWN, OHIO.—The contract for the repaving of Mahoning St. has been awarded to GARTLAND BROS., of Youngstown, at $4,358.

RAVENNA, OHIO.—The contract for paving Washington St. has been awarded to PUTNAM & PRICE, Marietta, Ohio, at $21,694. The other bidders were: Northern Ohio Paving & Construction Co., Cleveland, $26,382; Adams Bros. Construction Co., Zanesville, Ohio, $22,958; Morgan & Williams, Ravenna, $24,487.

WESTON, OHIO.—The contract for brick paving has been awarded to HENRY S. FRICK, of Lima, Ohio, at $10,506. Riggs & Sherman Co., Nasby Bldg., Toledo, Ohio, are Engrs.

LUCAS, OHIO.—Bids will be received by George V. Raab, Village Council, until June 6 for improving Wayne Ave. with about 27,266 sq. yds. of pavement, 7,520 lin. ft. of curb, 1,592 lin. ft. of 8, 10 and 12-in. sewer pipe, etc. Riggs & Sherman Co., Nasby Bldg., Toledo, Ohio, are Engrs.

ELYRIA, OHIO.—It is reported that contracts for road improvements have been awarded as follows: RICE & SON, the Cowley Road, 2.66 miles, in Eaton Township, $14,204; Case Road, 2.51 miles, in Ridgeville Township, $13,146; Indian Hollow Road, 2.09 miles, in Carlisle Township, sandstone base donated, $8,824; Chestnut Ridge Road, 4.06 miles, in Carlisle, Eaton and Ridgeville Townships, $22,557. To S. MENDELSON, Stoney Ridge Road, .68 mile, in Ridgeville Township, $33,077; West River Road, 3 miles, in Elyria Township, $16,924; Sugar Ridge Road, 1.09 miles, in Elyria Township, $7,761. A complete list of bids was given last week.

EATON, OHIO.—The contract for paving Main St. has been awarded to E. H. HEFFNER & SONS, of Celina, Ohio, at $11,685.

*CANTON, OHIO.—Bids are asked by the Commissioners of Shark County, until 10 a. m., June 20, for about 3.06 miles of grading in Shark County. J. H. McConnell is Audr..

DELAWARE, OHIO.—Bids are asked by W. F. Whittier, Surv. of Delaware County, until (a) 2 p. m., June 11, and (b) 3 p. m., the same day, for constructing (a) the Steckel Road, 1.394 miles long, and (b) the Moss Road, .46 miles long, respectively. The work consists of grading, draining and macadamizing.

MANSFIELD, OHIO.—Bids are asked by Garrie C. Lewis, Clerk of Madison Township, Richland County, until 1 p. m., May 28, for the construction of a section of pike road on the Lexington Ave. road.

DAYTON, OHIO.—Bids will be received until noon, May 31, by the Dept. Pub. Service for paving portions of Drury, Bickham, Alberta and several other streets; also constructing cement sidewalks on portions of Horton, Orchard, Campbell, Third and other streets. William A. Budroe is Secy.

CINCINNATI, OHIO.—Bids will be received until noon, June 3, by the Commissioners of Hamilton County, at Cincinnati, for resurfacing Montgomery Pike in Columbia and Sycamore Townships; also until same date for oiling a portion of Harrison Pike. Fred. Dreihs is Clk.

Bids are asked until noon, June 10, by the Commissioners of Hamilton County, under Specifications No. 54—For the improvement of Montgomery Ave., from the Norfolk & Western Ry. to Carthage Ave., in Columbia Township. Also at the same time under Specifications No. 53—For changing grades of Compton and Lockland roads where they approach the Miami and Erie Canal in Sycamore Township.

We are officially advised that bids were received at the office of the Board of County Commissioners on May 13 for the following county work: Under Specifications No. 38, for improvement to the Conrey Road, from Company Mill Road to Butler County line, in Sycamore Township. Fred Dreihs is Clerk. The contract has been let to WILLIAM KALBFELL, Perin Bldg., Cincinantl, at $4,670.

LOGAN, OHIO.—Bids are asked by the Village Council, until noon, June 3, for paving with brick, Mulberry St. C. A. Rochester is Clerk.

AKRON, OHIO.—Bids will be received at the office of the Board of Control, City Hall, until noon, June 2, for grading, draining, curbing, and improving Berry Ave., from Bowery St. to Mallison Ave., and Mallison Ave., from Wooster Ave. to Bartges St.; Maiden Lane alley, from State St. to Chestnut St.; Upson St., from Nebraska St. to Arch St., and Adams to Arlington, and Nebraska St., from Forge St. to Upson St.; Straw St., from Buchtel Ave. to Carroll St.; Wooster Ave., from end of pavement to East Ave.; Main St., south, from Stanton Ave. to south corporation line. Also for rebuilding a portion of Main Trunk Sewer, No. 115, along the Cuyahoga River Valley, from Hazel St. to the C., T. & V. R. R. John W. Gauthier is Dir. Pub. Service.

CRAWFORDSVILLE, IND.—Bids are asked by Fred. B. Robison, City Clerk, until June 23, for the construction of cement sidewalks on Oak St., Wabash Ave. and Water St.

GOSHEN, IND.—The contract for the paving of Main St. with brick has been awarded to H. F. BUNTA.

NEW ALBANY, IND.—Bids are asked until May 27 by the City Clerk for paving about one mile with vitrified brick at an estimated cost of $1.85 per sq. yd. Charles Appleby is City Engr.

INDIANAPOLIS, IND.—Steps have been taken for the paving of 38th St., from Capital Ave. to the State Fair Grounds with asphalt.

SOUTHPORT, IND.—Bids are asked by the Town Board until 7.30 p. m., June 6, for the construction of several cement sidewalks. A. L. Barnes, Clerk.

VALPARAISO, IND.—The Commissioners of Porter County will receive bids until noon, June 7, for the construction of macadam roads as follows: The Carl Johnson road in Portage and Weschester Townships, 11,035 ft. in length, and the Ira M. Biggs road in Liberty Township, 9,187 ft. Stephen B. Corboy is Audr.

BLUFFTON, IND.—O. D. Garratt, Audr. of Wells County, is asking for bids until 1 p. m., June 9, for the construction of four gravel, two stone and one macadamized roads.

PERU, IND.—Charles Griswold, Audr. of Miami County, will receive bids until noon, June 15, for the construction of a macadam road in Peru Township.

LAPORTE, IND.—The Commissioners of Laporte County will receive bids until 10 a. m., June 9, for the construction of a macadamized road, known as the Fox road in Center Township. Length of road, 4,917 ft. C. H. Miller is Audr.

ROCKVILLE, IND.—The Commissioners of Parke County are asking for bids until June 7 for the construction of three gravel roads in Raccoon Township.

WINAMAE, IND.—Bids will be received by the Commissioners of Pulaski County until noon, June 7, for the construction of a gravel road in Indian Creek Township. Ellis S. Rees is County Audr.

KENTLAND, IND.—Elmer R. Bringham, Audr. of Newton County, will receive bids until 1 p. m., June 6, for the construction of a macadam road in Jefferson Township, known as the Fletcher road.

GREENSBURG, IND.—The Commissioners of Decatur County will receive bids until 1 p. m., June 7, for the construction of four macadam roads as follows: The Moore road in Sandcreek Township, 9,618 ft. in length; the Michigan road in Adams Township, 9,136 ft. in length; the Garver road in Washington Township, 7,345 ft. in length, and the St. Dennis road in Marion Township, 4,800 ft. in length. Frank E. Ryan is County Audr.

DETROIT, MICH.—The Common Council of Detroit has directed the Board of Public Works, J. J. Haarer, Comr., 104 City Hall, Detroit, to advertise for proposals for paving the following streets: Collins St., with asphalt, estimated cost $30,667; St. Paul Ave., with cedar, estimated cost $12,153; Hart Ave., with cedar block, estimated cost, $13,184; all on concrete foundation with Medina, Borea or other approved curbing.

CHICAGO, ILL.—Bids will be received until May 27 by B. J. Mullaney, Comr. Pub. Wks., for furnishing material and repairing asphalt pavements.

JACKSONVILLE, ILL.—We are officially advised that bids were received on May 17 by the Board of Local Improvements for the construction of asphalt pavement on West College St., comprising 5,444 lin. ft. of curb and gutter, 7,780 sq. yds. of paving and 2,899 cu. yds. of excavation. The contract has been let to the STANDARD PAVING CO., 145 La Salle St., Chicago, Ill., at $17,810. E. M. Henderson is City Engr.

ELGIN, ILL.—Bids are asked until May 26 by the Board of Local Improvements for paving with asphalt and macadam. Carl E. Plum is City Engr.

JANESVILLE, WIS.—The following were low bidders for street work to be done here this summer: P. W. Ryan, macadam on North Washington St., $2,493; Graham & Gund, of Freeport, Ill., South Main St., $16,038; J. T. Blake, of Madison, Wis., asphalt on South Second, South Third and Sinclair Sts., $9,600.

JEFFERSON, WIS.—GEORGE H. STANCHFIELD, of Fond du Lac, Wis., has been awarded the contract for laying brick pavement in this city. Contract price, $15,736.

WATERTOWN, WIS.—We are officially informed that bids are being received by the Board of Public Works for brick paving to cost $28,000. Arnold Kraft is City Engr.; Gustav Glaser is Supt. of Streets.

DES MOINES, IOWA.—O. P. HERRICK, of Des Moines, Iowa, has the contract, at $14,331, for resurfacing macadam roads at Fort Des Moines, Iowa.

ALBIA, IOWA.—We are officially advised that contracts will be let soon for 4,000 sq. yds. of brick paving and 4,000 lin. ft. of curb and gutter. Hall & Adams, of Centerville, Iowa, are Engrs.

KNOXVILLE, IOWA.—Hall & Adams, Engrs., Centerville, Iowa, advise us that contracts will be let soon for about two miles of concrete paving in Knoxville; also 5,000 ft. of 8-in. sewer.

ALBERT LEA, MINN.—Bids are asked until 5 p. m., June 7, for paving Main St. with creosoted wood block, brick, mineral rubber or sandstone; 12,423.86 sq. yds. and 4,388 cu. yds. of excavation. William Barneck is City Engr.

DULUTH, MINN.—Bids are asked by the Board of Public Works, until 10 a. m., June 3, for paving Garfield Ave. with brick or standstone, at a cost of about $100,000. Thomas F. McGilvary is Engr.; R. Murchison is Clerk, Bd. Pub. Wks.

FORT RILEY, KAN.—Bids will be received until 10 a. m., June 1 by Capt. W. M. Whitman, Acting Q. M., for constructing about 6,600 sq. yds. of macadam road surfacing, 3,900 lin. ft. concrete curb and gutter, 8,000 sq. ft. concrete sidewalk, etc.

*DUNDEE, NEB.—Bids are asked by E. R. Hume, Village Clerk, until noon, June 1, for paving, curbing and guttering in Dundee. The work will be in charge of the Towle Engineering Co., Bee Bldg., Omaha, Neb.

BILLINGS, MONT.—Bids will be received until June 21 by J. D. Matheson, City Clk., for paving with creosoted block approximately 59,856 sq. yds. in Special Improvement District No. 53.

BUTTE, MONT.—We are officially advised that bids will be received in about two weeks for approximately five miles of pavement. R. R. Vail is City Engr.

HOUSTON, TEX.—At the meeting of the County Commissioners held on May 14, bids on contracts for the paving of 8.8 miles of public roads in Harris County were received. A contract was awarded to E. G. SMITH for completing four miles of the Lynchburg and Crosby road, while the contract for the work on the La Porte and Seabrook road for a distance of 4.8 miles will be awarded at the next meeting of the Court, the plans and specifications having been referred to T. J. Mahaffey, County Engr., for checking. The bids for the work on the Lynchburg and Crosby road were as follows: E. G. Smith, $22,200; Texas Grading Co., $29,860; W. S. Hipp, $25,040; W. D. Haden, $21,900. The bids for the work on the 4.8 miles of the La Porte and Seabrook road were from the following: W. S. Hipp, $22,848; E. G. Smith, $22,330; Texas Grading Co., $22,056; W. D. Haden, $21,120.

HOLDENVILLE, OKLA.—The contract for the construction of the first 20 blocks of rock asphalt has been let by the City Council to SHELBY & DOWNARD, of Ardmore, Okla. Their bid was $1.87 per sq. yd. Work must commence by July 12 and the paving finished by Nov. 1.

DENVER, COLO.—Bids were opened on May 5 by the Board of Public Works for grading and curbing in Montclair Improvement Dist. No. 1, which consists of the chain of boulevards which is to connect Cheesman and City parks by way of Montclair: Anderson, Ord & Savage, $154,209; Henry S. Moore, $155,539; Independent Construction Co., $168,985; Thomas J. Tully, $169,657; Denver & Pueblo Construction Co., $169,657, and J. Fred. Roberts, $170,648.

SEATTLE, WASH.—The Board of Public Works has let the following contracts for street improvement: Hillman Pl., grading, to GEORGE HANSEN, $6,818; Hunter Boulevard, asphalt, P. J. McHUGH, Third and Mercer Sts., $15,004; Palatine Ave., grading, GEORGE HANSEN, $32,542; East 66th St., concrete walks, P. J. McHugh, $13,315; North and East 57th St., concrete walks, PACKARD-SPINK CO., 57th and Latona Sts., $12,763; Klickitat Ave., planking, JOHN G. ENGSTROM, $16,925; West Stevens St., concrete walks, JOE FRANK & CO., $22,339.

R. H. Thomson, City Engr., has reported the following estimated costs for proposed improvements: Franklin Ave., concrete walks, $13,000; 44th Ave., S. W., grading, $84,000; 45th Ave., S. W., grading, $68,500; 16th Ave., N. E., concrete walks, $12,200.

SPOKANE, WASH.—The Board of Public Works has awarded to the BARBER ASPHALT PAVING CO., at $64,000, the contract for paving with asphalt, Lincoln St., from 19th Ave. to 29th Ave.

BAKER CITY, ORE.—We are officially informed that the City will have a quantity of street paving done this season. G. A. Henig is City Engr.

TORONTO, ONT.—Bids are asked by G. R. Geary, Mayor and Chn. Bd. of Control, until noon, May 31, for paving and curbing various streets in this city. C. H. Rust is City Engr.

SITKA, ALASKA.—Maj. W. P. Richardson, head of the Alaska Road Comn., has held several conferences with J. T. Williams, Vice-President of the Alaska Northern R. R. Co., regarding road building in Alaska this summer. Maj. Richardson promises better roads in the vicinity of Iditarod Camp, in the Innoko Territory, according to press reports. He called attention to the fact that the commission had not so much money to spend in road building this year as last. He estimated the amount to be available this year as $160,000, a large part of which will be spent on the Fairbanks-Valdez Trail.

MANUFACTURING PLANTS.

(* *denotes that this work is advertised in Engineering News.*)

NASHUA, N. H.—The E. W. PITMAN CO., 264 Essex St., Lawrence, Mass., has been awarded the contract and has started work on the cotton storehouse for the Nashua Mfg. Co., at Nashua, N. H. The building will be mainly of brick mill construction, with portions of the first three floors of reinforced concrete, eight stories and basement, 100 × 200 ft. The contracts for two direct-connected freight elevators are not yet let and will be in the care of the engineer, Charles T. Main, 201 Devonshire St., Boston, Mass.

CLAREMONT, N. H.—The S. CARTER CONSTRUCTION CO., of Worcester, Mass., has been awarded the general contract for the construction of the three additions to the Coy Paper Co., at Claremont. The contractor has started work on the foundations. The additions are of one and two stories, brick and mill construction. F. W. Dean, 53 State St., Boston, Mass., is Engr.

FLORENCE, MASS.—Plans are being prepared by the Nonotucky Silk Co., maker of Corticelli silks, for an addition to the spun silk mill, which it is expected will be ready for use by the first of the year. The addition is to be 85 × 55 ft., three stories high, and S. W. Lee is expected to double the capacity of the spun silk department. S. W. Lee is Treas.

LAWRENCE, MASS.—William Whitman has purchased a tract of land in Lawrence, Mass., where he will begin operations at once on a merino yarn plant. This land is located along and west of South Union St. and south of Falmouth St., bounded on the west by the Boston & Maine R. R., and contains about 15 acres of land, most of which is at present covered by a grove of large trees. Its southern edge is a mile from the South Union St. bridge over the Merrimack River.

PITTSFIELD, MASS.—The Stanley Electric Co. has let the contracts for the punch press building to be built on Tyler St., as follows: BECKWITH & PIKE, of this city, are to do the brick and masonry work and LEVERING & GARRIGUES, 552 West 23d St., New York, will furnish the steel. The building is to be 375 × 120 ft., and one story high. It is to cost about $125,000 and will be finished, by the terms of the contract, on Nov. 1.

WORCESTER, MASS.—The plant of the Worcester Muslin Underwear Co., 19 Harding St., David Pobolinski & Sons, proprietors, is to be enlarged by the addition on Harding St. of a 4-story building which will be about 60 ft. long and 50 ft. wide. It is planned to double the capacity of the shop. The company employs at present about 150 hands.

PROVIDENCE, R. I.—The Joslin Mfg. Co. is having plans drawn for a dyeing and bleaching house to be constructed at its merino mills. Work on the building will be commenced within a short time.

SCHENECTADY, N. Y.—The Pressed Steel Car Co., which has a plant in South Bethlehem, Pa., has purchased 100 acres of land in this city, and will erect a large plant this summer. When the new plant opens next spring 5,000 men will be employed and that within five years this number will be increased to 15,000, according to the statement of Wesley E. Tole, Secy. of the Schenectady Board of Trade.

NEWBURGH, N. Y.—William Crabtree & Sons, of Montgomery, N. Y., are having plans made for a worsted mill they propose to build in this city. The buildings will be of brick, mill construction, and will include a power plant of 250 HP.

PHILADELPHIA, PA.—The Ontario Dyeing Co. has purchased from the Hulton Dyeing & Finishing Co., the mill buildings and land at the northeast corner of Ontario and D Sts. This property is about 300 × 225 ft., and it is the intention of the purchaser to erect an addition at a cost of about $50,000, consisting of a 4-story brick building. James Hulton is Pres. of this concern which is under the same control as the Hulton company, although a separate organization.

SIEGFRIED, PA.—An addition is planned by the Central Silk Mfg. Co., of Siegfried, Herman J. Feldhege, Pres. and Gen. Mgr., to its plant and also the erection of a throwing mill at Northampton. When completed and in operation the two new portions of the industry will double the capacity and product of the plant.

MOUNT CARMEL, PA.—GEORGE H. KEEFER has a contract with the Mount Carmel Silk Mill Co., composed of John A. Wirts, William H. Shindel and John W. Timmes, of Shamokin, Pa., for the construction of a silk mill on the plot granted by the Mount Carmel Board of Trade. The building will cost about $12,000.

SHARON, PA.—Improvements costing $100,000 will be made at the South Sharon plant of the American Steel & Wire Co. within a few months, according to the Sharon "Herald." The expenditure will be a portion of the $2,000,000 appropriated by the corporation for new construction at its plants throughout the country. A rod mill furnace will be erected, to cost in the neighborhood of $62,000, and a large store room is now in course of erection, the contract having been awarded to A. W. WISHART & SONS CO., of Sharon. When completed it will cost about $10,000. Several thousands of dollars will also be spent on other minor improvements in the local mill. W. P. Palmer is Pres.

BALTIMORE, MD.—Dietrich Bros., structural steel and ornamental iron works, at North and Bath Sts., will enlarge their present plant by an addition 200 × 70 feet. It will be of steel and brick construction and two stories high. To make room for the improvement the firm has purchased Nos. 337, 339, 341, 343, 345 and 347 Bath St. It has also bought Nos. 216, 218, 220 and 222 Pleasant St. The latter site will be utilized later.

LUMBERTON, N. C.—The management of the Jennings Cotton Mill of Lumberton, N. C., is clearing the land which will be the site for its plant and is receiving materials for the construction of the operatives cottages. J. E. Sirrine of Greenville, S. C., is the Arch.-Engr. in charge and he is expected to complete the plans and specifications soon. This will represent an investment of nearly $300,000. The company was organized some weeks ago, its officers being: Pres. and Treas., H. B. Jennings; Vice-Pres., A. E. White; Secy. and Asst. Treas., F. P. Gray. The mill will be equipped for yarn production.

KINGS MOUNTAIN, N. C.—C. E. Neisler, Supt. of three cotton mills in this vicinity, will build a cotton factory at Kings Mountain, N. C. This plant will be known as the Pauline Mills, and it will be equipped with 32 jacquards for the production of high grade damask. The machinery has been purchased and the erection of the building begun by S. S. FALS, to whom the building contract was awarded. Further details will be given soon.

COOLEEMEE, N. C.—The North Cooleemee Hosiery Co., of Cooleemee, N. C., has awarded contract to M. D. LEFTER, of Salisbury, N. C., for the erection of its building. This structure will be equipped with hosiery knitting machinery to be driven by steam power. The main building will be about 100 × 40 ft. C. P. Deadmon is Pres., and the capital stock is $20,000. Noted on May 5.

GAFFNEY, S. C.—The Hamrick Mills Co., Gaffney, S. C., has engaged J. E. Sirrine, of Greenville, S. C., as Arch.-Engr., for its additional mill announced recently. Construction has begun on the building, which will be 228 × 105 ft. two stories high, of brick construction. The equipment will be 15,000 spindles and 364 looms, driven by 500 electrical horse-power. By fall this enlargement will be completed and ready for operation. The LOWELL MACHINE SHOP, of Lowell, Mass., will furnish the spinning machinery, and the DRAPER CO. of Hopedale, Mass., will supply the looms. About $250,000 will be the cost of this building and its equipment. The company's present equipment is 10,240 ring spindles and 260 broad looms, driven by electric power.

DALTON, GA.—The Eagle Knitting Mills, Dalton, Ga., was destroyed by fire on May 14 and probably will be rebuilt by the owners. The plant was valued at $25,000.

ATLANTA, GA.—The Ti-Tite-Tape Co. of Atlanta, Ga., has been incorporated with a capital stock of $30,000 for the purpose of manufacturing tape and similar products. Its incorporators are L. J. Troutstine, B. J. Iseman, Isaac Liebman, Joseph Jacobs, W. A. Parker, W. Woods White, J. P. Brown, J. M. Arnold, William Snyder, J. H. Franklin and a number of others. Details of plant have not been announced by the company.

MEMPHIS, TENN.—Announcement is made by the Frisco System that H. B. Nedaroy and Marshall Mott, of Portageville, Mo., who have grain and elevator interests at that point, will establish an elevator system at Memphis that will involve an outlay of more than $50,000, and that will have a capacity of more than 100,000 bushels. It is stated that they will continue their interests at Portageville, but that Memphis will be their principal place of business. Operations here will be conducted under the name of the Mott Elevator Co.

A plant to cost $25,000 will be constructed by the Gleeola Co. to bottle mineral waters. E. C. Bolton, Pres.

NASHVILLE, TENN.—We are officially advised that the FOSTER-CREIGHTON-GOULD CO., of Nashville, has the contract to erect a reinforced concrete car shed for the Nashville Railway & Light Co. The cost will approximate $15,000.

FREMONT, OHIO.—The officials of the National Carbon Co. have announced their plans to erect an addition to the Fremont plant of the company to cost about $50,000.

LIMA, OHIO.—Albert Kahn and E. Wilby, Archs., Trussed Concrete Bldg., Detroit, Mich., have let the general contract for the 2-story automobile plant, 400 × 75, 100 × 75 and 200 × 75 ft., for the Grann-Logan Motor Co., Lima, Ohio, to H. J. SPIEKES CO., 409 Michigan Ave., Toledo, Ohio. Cost, $100,000.

LA FAYETTE, IND.—The officials of the Chicago, Indianapolis & Louisville Ry. Co. have awarded a contract for the construction of an addition to the shops to the LA FAYETTE ENGINEERING CO., at $55,000.

GARY, IND.—It is announced that the National Tube Co. will construct a plant in this city. The works will give employment to 15,000 men.

ROCHESTER, IND.—The Rochester Commercial Club has purchased ground and will let contracts for the erection of two factory buildings.

GRAND RAPIDS, MICH.—Robinson & Campeau, Archs., Houseman block, Grand Rapids, Mich., have let the general contract for the proposed 6-story factory, 66 × 141 ft., for W. C. Hopson & Co., 25 Campeau St., to APPLEYARD & JOHNSON, Widdicomb Bldg., Grand Rapids, Mich. The building is to cost $50,000.

WYANDOTTE, MICH.—Varney, Winter & Varney, Equity Bldg., Detroit, have let the masonry contract for a 2-story automobile plant, 300 × 60 ft., for the Swift Automobile Co., Wyandotte, Mich., to CLAXTON BROS., 724 Second Ave., Detroit. The plant will cost $30,000.

DETROIT, MICH.—Albert Kahn [illegible]nd E. Wilby, Trussed Concrete Bldg, Detr[illegible] have let the general contract for the [illegible]owing factory buildings for the Lazier M[illegible] Co., 1616 Ford Bldg.; 4-story building, 7[illegible]0 ft.; 2-story building, 260 × 60 ft. to [illegible]NTLY & Co., 37 West Huron St., Toled[illegible] Ohio. The Lozier Motor Co. will spend $[illegible],000 in the erection of the plant.

The same architects have let th[illegible]llowing contracts for the 4-story buil[illegible] for the Grabowsky Power Wagon Co., [illegible] H. Grabowsky, Gen. Mgr., 68-72 Champ[illegible] St.; Carpentry to HARCU & CO., 770 [illegible]ssell St.; painting to O. LEIVIT, 777 Bu[illegible]nan St.

The same architects have let the [illegible]ract for the structural iron, for the prop[illegible] 1-story forge building, 360 × 80 ft., [illegible]ory building, 140 × 80 ft., for the Packa[illegible] Motor Car Co., East Grand Boulevar[illegible] and Belt Line R. R. to H. B. LEWIS, [illegible]5-57 Joseph Campeau Ave. Plant is t[illegible] cost $50,000.

The same architects let the masonr[illegible] contract for a 1-story storage building, 7[illegible] 181 ft., for the Anderson Forge Co., W. [illegible] Anderson, Gen. Mgr., 21-31 St. Aubin A[illegible] to E. D. JACKSON, 980 Brush St.

R. E. Raseman, Penobscot Bldg., Detroit, is preparing plans and specifications for an automobile plant consisting of several 1, 2 and 3-story buildings, 26 × 50, 50 [illegible] 60, 30 × 145, 80 × 160, and 161 × 42 ft., respectively. The architect will take bids about June 1. Stock brick, Bedford stone, mill construction, composition roofing, structural iron and wood and concrete floors will be used in construction.

The Fell-Lemen Trimmings Co., J. M. Lemen, Mgr., 351 Michigan Ave., Detroit, is having plans prepared for a 2-story factory, 104 × 60 ft., of stock brick and Bedford stone, construction, with composition roof and electrical fixtures.

The Buick Motor Co., Wm. H. Orrell, Gen. Mgr., 127 Woodward Ave., is having plans prepared by the company's engineers for a garage and machine shop, two stories high, 100 × 245 ft., and one story, 245 × 50 ft., respectively. Estimated cost, $50,000.

CHICAGO, ILL.—See item under Buildings.

BLOOMINGTON, ILL.—The Chicago & Alton R. R. Co. has made a proposition to the City of Bloomington, through George H. Ross, Vice-Pres., that, if the city will supply land valued at $165,000, the road will expend approximately $1,000,000 in enlarging the shops here and in the construction of a union depot to cost not less than $75,000. The principal shops of the company are located here, and 1,500 to 2,000 men are employed, while the monthly pay roll averages $150,000. Either the company must secure more room to expand or it will be necessary to remove the plant elsewhere. To secure the additional land, many blocks of business and residence structures must be purchased and the buildings torn down or removed, according to press reports. The shops are encroached upon by these structures and the expense of acquirement has been estimated to be $165,000. The road agrees, if the land is turned over, to erect at once a round-house of 50 stalls, to enlarge the machine and car shops, increase the switching tracks and also increase the number of employes. The Bloomington Business Men's Association has virtually accepted the offer of the road, and a canvass has commenced to raise the money necessary to buy the land. It is intimated that if the city accepts the offer of the road this city will be made the shop center of the Alton-Clover Leaf system. Peter Maher is Supt. of Motive Power, Bloomington, Ill.

ST. PAUL, MINN.—The Northern Pacific Ry. Co. is receiving bids for the construction of a 2-story brick and stone car shop to be built adjoining its present shops at Lake Como. Figures are also being taken for a 1-story brick and concrete paint shop. Cost, $55,000.

OMAHA, NEB.—Bids will be invited soon by the Union Pacific R. R. Co., for a car shop and planing mill plant at Omaha that will cost approximately $400,000, which, added to other expenditures, means that about $3,000,000 will be spent on improvements at this point this year. E. C. Fuller is Supt. of Motive Power, Omaha.

FORT BLISS, TEX.—Bids are asked by Capt. William H. Waldron, Constr., Q. M., until noon, May 31, for constructing an ice plant at Fort Bliss.

SAN ANTONIO, TEX.—The Zilker Artesian Ice Co. has received plans for its proposed cold storage plant, which will be erected here. The plant will cost about $200,000. The plans call for a fireproof structure. The contract will be let as soon as the plans are considered and adopted.

FREDERICK, OKLA.—The Frederick Knitting Mill of Frederick, Okla., has awarded contract to ROSS & FERGUSON, of Frederick, for the erection of its mill building. T. F. TARWATER, of Frederick, has the contract for the foundation and has completed his work. The building is to be 150 ft. long by 50 ft. wide and will be two stories high. Its equipment will be machinery for knitting hosiery. The company was organized in March with a capital stock of $100,000, J. W. Blackwelder, of Hickory, N. C., is the principal promoter.

COOLINGA, CAL.—The Oil Tool Spe[illegible]lty Co. will erect a factory building here, to cost $30,000. S. D. Porter and J. J. Long are Secy. and Mgr., respectively.

SACRAMENTO, CAL.—The Consumers Ice & Cold Storage Co. has decided to erect a 6-story building for a cold-storage plant on its site at Eighth and D Sts. The structure is to be erected upon a pile foundation, so as to assure a substantial building. For the present only four stories of the proposed structure are to be built. It will be built of brick and will be absolutely fireproof. The building will cost $75,00[illegible]

QUEBEC, QUE.—At a conference with the Council of the Board of Trade, held on May 18, the assurance was given by Hon. S. N. Parent, Chn. of the National Transcont ntal Railway, that the eastern workshop of the railway would be located at Que

H ILTON, ONT.—The Oliver Chilled Plo Works has decided to locate a plant in ada and for that purpose the company has purchased 75 acres of land at Ha on, Ont., located between the Grand Tru Western tracks and Burlington Bay. The act has a deep water front extending a qua r of a mile, providing exceptional shi g facilities, both by water and rail. Pl have already been prepared for a pla to cost $1,500,000 and the work of gr g will be started as soon as steam sh s can be gotten on the ground. The pla will eventually give employment to 2,0 men. The plans call for a water front do 500 ft. long and 80 ft. wide, in addition to the following buildings of steel and reinforced concrete construction: A 6-story warehouse, 100 × 300 ft.; painting building, three stories high, 70 × 200 ft.; assembly building, three stories high, 100 × 400 ft.; forge shop, one story high, 100 × 420 ft.; service building, two stories high, 50 × 100 ft.; malleabl eiron foundry, one story high, 120 × 420 ft.; core making foundry, two stories, 40 × 100 ft.; grey iron foundry, one story high, 120 × 420 ft.; boiler shop and storage building, two stories high, 70 × 100 ft.; wood shop, two stories high, 60 × 200 ft.; three dry lumber sheds, one story each, 50 × 150 ft.; flask and chill storage building, one story, 50 × 80 ft.; power-house, 50 × 80 ft.; boiler house, 50 × 80 ft.; charging shop, 50 × 80 ft.; iron storage, one story high, 50 × 100 ft.; office building, two story, 60 × 100 ft.; automobile truck garage, 30 × 60 ft., and a number of minor houses, such as iron houses, locomotive houses, watchman offices and lesser buildings.

The present work is in charge of Richard A. Smart, Work Mgr., of the South Bend factory, the designs having been made by Prack & Perrine, Archs. and Engrs., of Pittsburg, Pa., and South Bend. Application for a charter from the Canadian Government was made last week, the capitalization being placed at $500,000. The incorporators are: Joseph D. Oliver, James Oliver, Edwin Nicar, R. A. Smith and W. A. McInerny. The company will receive bids for grading the site the latter part of this month. The firm of Prack & Perrine will open an office on the site.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

GRAVEL.—New York, N. Y.—See item under Streets and Roads.

DITCH.—New Ulm, Minn.—Contract for constructing Ditch No. 1 has been awarded to G. E. GILBERTSON, of St. James, Minn., at $18,490.

REELS AND CARTS.—Washington, D. C. —Bids will be received until June 1 by the Chief of Ordnance for furnishing 67 reels, model 1909, and 31 carts.

BREAKWATER.—Newport, R. I.—Bids will be received until 11 a. m., June 23, by Lieut.-Col. J. C. Sanford, Corps Engrs., U. S. A., for repairing breakwater at Sakonnet Harbor, R. I.

TRACK ELEVATION.—Fort Wayne, Ind.—The HERMAN W. TAPP CONSTRUCTION CO., Fort Wayne, has been awarded the contract for the entire work of track elevation in this city.

CANAL.—Ottawa, Ont.—Bids will be received by L. K. Jones, Secy. Dept. of Railways and Canals, Ottawa, until 4 p. m., June 3, for Port Colborne entrance improvement, Welland Canal.

DRAINAGE.—Forest City, Iowa.—Bids will be received until 1 p. m., June 7, by the Board of Supervisors of Winnebago County for the work in Drainage District No. 6. L. J. Nelson, County Audr.

WHARF EXTENSION.—Fort Barrancas, Fla.—Bids wil be received until 11 a. m., June 15, by the Quartermaster, for constructing an extension to the quartermaster's wharf, Fort Barrancas.

DREDGING.—New Orleans, La.—Bids will be received until 11 a. m., June 10, by Col. Lansing H. Beach, Corps Engrs., U. S. A., New Orleans, for dredging at Chefuncte and in Bogue Falia Rivers, La.

SAND.—Atlanta, Ga.—Contract for furnishing 10,000 cu. yds. of sand for the U. S. penitentiary, Atlanta, has been awarded to the ATLANTIC SAND & SUPPLY CO., of Atlanta, Ga., at 96.5 cts. per cu. yd.

DITCH.—Anderson, Ind.—Bids will be received until 10 a. m., June 4, by Brice Dille, Supt. of Construction, for construction of ditch petitioned for by Frank Plumer and others. Estimated cost, $2,036.

DITCH—Washington, Iowa—Bids will be received by C. E. Myers, County Audr., until noon, June 4, for the construction of ditch No. 1 in Drainage District No. 1 in English River Township, Washington County, Iowa.

OILS, GREASE.—New York, N. Y.—Bids will be received by the Department of Water Supply, Gas and Electricity until 2 p. m., June 6, for furnishing and delivering lubricating and illuminating oils and lubricating grease.

DRAINAGE.—Waco, Neb.—Bids will be received by the Commissioners of Waco Drainage District until June 7 for constructing a drainage system to cost about $9,000. Address Grant & Letton, Engrs., F. & M. Bldg., Lincoln, Neb.

DAM.—Grand Rapids, Wis.—Contract has been let to ULE & CO., Grand Rapids, Wis., for constructing a dam at Jim Falls, Wis., for the Davis Falls Land Co. Jacobson & De Guer, Grand Rapids, are Engrs. Estimated cost, $75,000.

TERMINALS. — Jacksonville, Fla.—W. P. RICHARDSON & CO., of Jacksonville, are reported to have secured contract for the construction of terminals for the Clyde Steamship Co., at Market and Washington Sts. Estimated cost, $500,000.

BROKEN STONE, SCREENINGS—New York, N. Y.—Bids will be received until noon, June 7, for furnishing all the labor and materials required for furnishing and delivering 5,000 tons of broken stone and screenings in stone, District No. 1.

WHARF EXTENSION.—Sault Ste. Marie, Ont.—Bids will be received until 5 p. m., June 20, by Nap. Tessier, Secy. Dept. Public Works, Ottawa, for the construction of an extension to the government wharf at Sault Ste. Marie, District of Algoma, Ont.

RETAINING WALL.—Dayton, Ohio.—Bids were received on May 11 by the Department of Public Service for building the Stewart St. retaining wall. J. C. Ely, Dir. Public Service. Wm. H. Boyd was low bidder at $3.29 per cu. yd. Estimated cost, $1,000.

OILING ROAD.—Cincinnati, Ohio.—Bids will be received until noon, June 3, by the Board of County Commissioners for oiling Harrison pike, from East Miami River road to the east corporation line of Harrison, Ohio, in Whitewater and Harrison Townships.

*STEEL LOCK GATES, ETC.—Buffalo, N. Y.—Bids will be received until 11 a. m., June 27, by Col. W. L. Fisk, Corps Engrs., U. S. A., for construction and erection of steel lock gates, valves and operating machinery for ship lock in Black Rock Harbor at Buffalo.

*MANEUVER BOAT.—Cincinnati, Ohio.—Bids were received by Lieut. Col. J. G. Warren, Corps of Engrs., U. S. A., on May 18 for constructing hull of one maneuver boat. Lowest bidder was the Monongahela River Consolidated Coal & Coke Co., Pittsburg, Pa., at $2,311.

CHANNEL.—New York, N. Y.—The Sinking Fund Commission approved on May 18 the plan for the improvement of Jamaica Bay. The city soon will appropriate $1,000,000 for the commencement of the work. The Government will build the channel through Rockaway Neck.

WRECK REMOVAL.—Plymouth, Mass.—Bids were received by Lieut.-Col. Edw. Burr, Corps Engrs., U. S. A., Boston, on May 21 for removal of wreck of barge "City of Montreal" in Plymouth Harbor, Mass. Lowest bidder was the Thames Tow Boat Co., New London, Con., at $4.299.

SEAWALL.—Newport, R. I.—Bids will be received until 11 a. m., June 18, by the Bureau of Yards and Docks, Navy Dept., Washington, for constructing a rubble seawall at the U. S. Naval Hospital, Newport. Specifications are on file at office of Engineering News, New York. $4,000 appropriation is available.

CHANNEL.—Clarinda, Iowa.—Bids were received on May 10 by the Board of Supervisors, at Clarinda, for constructing a new channel for the Tarkio River in Drainage District No. 7, about 233,802 cu. yds. of excavation. C. W. Duke, County Audr. Lowest bidder was C. J. McElhenny, Lawton, Mich., at 9.98 cts. per cu. yd.

REPAIRING SCOWS.—New York, N. Y.—Bids were received by the Department of Street Cleaning May 16, for furnishing all the labor and materials required for repairs to scows of the Department of Street Cleaning, numbered 7, 13, 23, 27 and 36. Contract was awarded to the WATERS-COLVER CO., West New Brighton, N. Y., at $4,687.

INTERLOCKING PLANT.—Harrisburg, Pa. —The Philadelphia & Reading Ry. Co. has awarded the contract for the Oley St. interlocking plant to the FEDERAL SIGNAL CO., 103 Park Ave., New York. It is expected that the new switches, etc., will be finished in six months. It will be modern in every detail and operated by electricity.

PARK.—Watertown, Wis.—Bids will be received until May 28 by the Board of Park Commissioners for constructing a park in the Sixth Ward. The work consists of grading and sloping about 4,000 cu. yds., surfacing, planting trees, constructing a gravel walk, dredging canal (about 4,400 cu. yds.), erecting a bridge, span 26 ft., 8 ft. wide, etc. Arnold Kraeft is City Engr.

CHANNEL.—Boston, Mass.—Bids were received on April 25 by the Metropolitan Park Commission for excavating a new channel for Alewife Brook, Spy Pond to Mystic River, Belmont, Cambridge, Arlington and Somerville. Contract has been awarded to the EASTERN DREDGING CO., 247 Atlantic Ave., Boston, at $51,660. Itemized bids will be given under Contract Prices next week.

DITCHES.—Angleton, Tex.—The Commissioners Court, in connection with the Drainage Commissioners for the Alvin Drainage District, received bids for ditches on May 10. Contract was awarded to J. C. KELSO, of Galveston, the lowest bidder, at 10½ cts. per cu. yd. for dry excavation and 16½ cts. for wet excavation, and $300 per mile for clearing the timber from the right-of-way.

CANAL SYSTEM. — Calgary, Alta.—Bids were received on May 1 by J. S. Dennis, Asst. to 2nd Vice-President Canadian Pacific Ry. Co., Calgary, for all excavation required to complete the canal system in the eastern section of the company's irrigation block in Alberta, amounting to about 28,000,000 cu. yds. of material. See Canadian Pacific Ry. item under Railways for award of contract, etc.

PIER.—New York, N. Y.—Bids will be received until noon, June 6, by the Department of Docks and Ferries (Contract No. 1147), for furnishing all the labor and materials required for preparing for and building a new pier at the foot of Oliver St.; also for preparing for and building a new bulkhead platform westerly from said pier, between James Slip and Oliver St., East River, Boro. Manhattan.

DREDGING.—Duluth, Minn.—Bids were received on May 12 bv the U. E. engineer at Duluth, Minn., for dredging about 50,000 cu. yds. at Grand Marais, Mich., as follows: Northern Dredge and Dock Co., Duluth, Minn., 24 cts. per cu. yd.; Great Lakes Dredge & Dock Co., Duluth, Minn., 23¼ cts.; EDWARD BROS. DREDGE CO., Sault Ste. Marie, Mich., 22 cts., accepted; Zenith Dredge Co., Duluth, Minn., 23 cts.

*BULKHEAD, PIERHEAD LINES.—New York, N. Y.—There will be public hearing by New York Harbor Line Board in Room 809, 39 Whitehall St., New York, at 11 a. m., June 29, on application to Secretary of War, by Department Docks, New York, for bulkhead and pierhead lines from Barren Island along westerly and northerly shores of Jamaica Bay to Cornell Basin, Boro. of Queens. Interested parties are invited to attend and be heard. Col. Wm. T. Rossell, Corps Engrs., U. S. A., Senior Member of Board.

*DIVERSION CHANNEL.—East St. Louis, Ill.—Bids were received on May 16 by the Board of Trustees, East Side Levee and Sanitary Dist., Sexton Bldg., for construction of a diversion channel for Cahokia Creek and necessary levees and embankments and other auxiliary or incidental improvements, in accordance with Ordinace No. 5 of The East Side Levee and Sanitary District. Contract was awarded to S. R. H. ROBINSON & SON CONTRACTING CO., 905 Chemical Bldg., St. Louis, Mo., at $259,153. Itemized bids are given in this issue under Contract Prices.

ROCK, BRUSH.—Dubuque, Iowa.—Bids for supplying rock and brush to the government for river improvements, were opened at the United States engineer's office at Dubuque on May 2. Contracts have been awarded as follows: For rock: THOMAS WELSH, Cuba City, Wis., 10,000 cu. yds. at 70 cts. per cu. yd; CHARLES PAPE, Waupeton, Iowa, 8,000 cu. yds., at 76 cts. LE CLAIRE STONE CO., Le Claire, Iowa, 6,000 cu. yds. at 80 cts. For Brush: THOMAS WELSH, Cuba City, Wis., 18,000 cu. yds. at 17 cts. GRAUK & RICH, Stoddard, Wis., 18,000 cu. yds. at 17 cts.

PUBLIC WORKS OF VARIOUS KINDS.—The mayor of a European city, in response to an inquiry from an American consular officer, states that the city requires a loan of $669,000 for public improvements, $154,500 to be available at once. It is the intention of the city to reconstruct the waterworks, install an electric lighting system, as well as electric tramways, erect a grain elevator on the banks of a river, pave the streets, and construct municipal office buildings in the center of the city. The loan will draw interest at 5% per annum. In applying for addresses or information, refer to file No. 4968, Bureau of Manufactures, Dept. Commerce and Labor, Washington, D. C.

DREDGING AND DRAINING ENTERPRISE.—An American consular officer reports that a South American government has announced its intention of calling for bids for the dredging and drainage of a large area of swamp lands surrounding much of a local bay. With comparatively little expense it is believed this land can be reclaimed and restored to its former productiveness and value. The indications are that the work will be let out on one or more general contracts, to be paid for according to a rate for unit of work accomplished rather than by entire contract. The consular officer states it will be practically impossible for Americans interested in this work to get in touch with the government without an agency in the country or some one on the ground to present their propositions. Copy of the complete report, giving further details, can be obtained upon application to the Bureau of Manufactures, Dept. Commerce and Labor, Washington, D. C. (In applying for information, refer to file No. 4979.)

BLASTING MATERIALS.—Panama.—Bids were received as follows on May 20, by the Isthmian Canal Commission, Washington, for blasting material for the period ending on June 30, 1911: Bidders, (A) American Powder Mills, 143 Dearborn St., Chicago; (B) Aetna Powder Co., 143 Dearborn St., Chicago; (C) E. I. Du Pont de Nemours Powder Co., 90 West St., New York; (D) Keystone National Powder Co., Emporium, Pa.: 8,540,000 lbs. saltpeter dynamite, 45% nitroglycerin, (C) 11.7 cts.; (D) on 3,000,000 lbs. only, 11.6 cts. 134,000 lbs. 60% nitroglycerin, cartridges, 1¼ × 4 ins., (C) 12.7 cts.; (D) on 50,000 lbs. only, 13 cts. 4,953,000 lbs., 60% nitroglycerin, cartridges, 1¼ × 8 ins., (C) 12.7 cts.; (D) on 1,500,000 lbs. only, 12.65 cts. 100,000 lbs., 60% nitroglycerin, cartridges, 2 × 8 ins., (C) 12.7 cts.; (D) 12.65. About 10,000,000 double strength electric fuses, 10 ft. to 1,000 ft. long, (B) $89,909; (C) $85,303. 4,322,000 ft. triple tape fuse, (A) $3.775 per ft.; $16,305; (C) $3.90 per ft.; $16,856. Awards probably will be made to lowest bidders.

(Continued on page 226.)

CONTRACT PRICES.

(* *denotes that this work is advertised in Engineering News.*)

ROAD IMPROVEMENT.—Elizabeth, N. J.—Bids were received by the Board of Freeholders for macadamizing Palisade Ave., and Madison Hill Road; also Lake Ave. and Raritan Road, May 18. The bidders were (A) McGovern Contracting Co., Trenton, N. J.; (B) C. H. Winans & Co., Linden, N. J.; (C) Weldon Contracting Co., Rahway, N. J.; (D) Standard Bitulithic Co., 253 Broadway, New York City. F. J. Hubbard, County Engr., Plainfield, N. J., is in charge of the work. The itemized bids were as follows:

MACADAMIZING LAKE AVE. AND RARITAN ROAD.

	A	B	C	D
32,374 cu. yds. excavation	$0.50	$0.37	$0.35	$0.40
23,900 sq. yds. macadamizing:				
With Asphaltum	1.00	1.11	.86	...
With Amiesite	...	1.65	1.22	...
With Filbertine	...	1.63	1.37	1.35
With Headleys	...	.95	...	...
336 sq. yds. driveways	.80	.45	.40	.50

MACADAMIZING PALISADE AVE AND MADISON HILL ROAD.

	A	B	C	D
27,910 cu. yds. excavation	$0.50	$0.39	$0.35	$0.41
22,880 sq. yds. macadamizing:				
With Asphaltum	1.00	1.15	.88	...
With Amiesite	...	1.73	1.24	...
With Warrenite	...	1.69	1.39	1.37
With Filbertine	...	1.80	.97	...
224 sq. yds. macadam for driveways	.80	.50	.40	.50
1,100 sq yds. gutters, cobble	1.00	.80	.60	1.80

PAVING.—Centerville, Iowa.—Bids were received May 13 for paving by Hall & Adams, Engrs. The bidders were: (A) M. Ford, Cedar Rapids, Iowa; (B) Cedar Rapids Construction Co., Cedar Rapids, Iowa; (C) Northwestern Construction Co., Cedar Rapids, Iowa; (D) McGUIRE & STANTON, Leavenworth, Kan. (awarded contract). The itemized bids were as follows:

PAVING—CENTERVILLE, IOWA.

	A	B	C	D
35,930 sq. yds. brick paving, 5-in. base, 1½-in. cushion, cement filler, including grading.	$2.075	$2.095	$2.14	$2.03
20,910 lin. ft. combined curb and gutter, 24-in. gutter, 1-in. wearing surface	.55	.57	.68	.52
4,000 cu. yds. grading, extra	.35	.36	.36	.30
Total	$87,454	$88,632	$92,569	$85,011

NEW CHANNEL.—East St. Louis, Ill.—Bids were received May 16 for the construction of Cahokia Creek Diversion Channel. The bidders were: (A) S. R. H. ROBINSON & SON CONTRACTING CO., 905 Chemical Bldg., St. Louis (awarded contract); (B) Shaw, Foohey & McGinnis, Bement, Ill., and Fort Wayne, Ind.; (C) Lorimer & Gallagher Co., Chicago, Ill.; (D) James O. Heyworth, Chicago, Ill.; (E) E. M. Graves, Cleveland, Ohio; (F) Scott, Hannon & Hickey, St. Louis, Mo.; (G) Yale & Reagan, Chicago, Ill.; (H) R. A. Brown, Washington, Ind.; (I) W. W. Brown Construction Co., East St. Louis, Ill.; (J) Hercules Co., New Orleans, La. The itemized bids were as follows:

CAHOKIA CREEK DIVERSION CHANNEL—EAST ST. LOUIS, MO.

	A	B	C	D	E	F	G	H	I	J
1,427,900 cu. yds. Excavation	$0.1695	$0.17	$0.18	$0.178	$0.1942	$0.9950	$0.189	$0.25	$0.2475	$0.293
1,427,900 cu. yds. Overhaul	.01	.015	.01	.0225	.01	.01	.02	.01	.02	.011
2 acres Grubbing	100.00	100.00	200.00	150.00	500.00	50.00	300.00	100.00	50.00	22.00
60 ft. C.-I. Pipe, 30-in	5.97	7.50	10.00	9.00	9.00	15.00	10.00	4.50	7.00	6.50
96 ft. C.-I. Pipe, 24-in	4.86	5.00	8.00	6.00	5.00	12.00	9.00	4.00	6.25	4.25
70 cu. yds. Concrete, reinforced	16.00	19.00	20.00	15.00	15.00	15.00	12.00	11.00	8.50	20.00
22 cu. yds. Concrete	12.00	12.00	10.00	10.00	10.00	12.00	10.00	10.00	8.50	12.00
Sluice Gate, 30-in. pipe	405.00	100.00	300.00	350.00	200.00	180.00	250.00	240.00	175.00	300.00
Sluice Gate, 24-in. pipe	339.00	90.00	200.00	200.00	150.00	140.00	200.00	220.00	150.00	250.00
Sluice Gate, 4 × 5 ft. culvert	593.75	400.00	800.00	900.00	100.00	650.00	500.00	450.00	300.00	700.00
Total	$259,153	$266,122	$275,087	$288,400	$294,415	$296,254	$300,701	$373,106	$382,686	$436,896

MISCELLANEOUS CONTRACTS.

(Continued from page 225.)

BARGE CANAL.—Albany, N. Y.—Bids were received by F. C. Stevens, Supt. Public Works, on May 24, for Barge Canal Contracts Nos. 63 and 73, as follows: Contract No. 63, providing for the improvement of the Erie canal from the west line of Wayne County to the east end of Contract No. 23 at King's Bend, a distance of 12.22 miles: (Engineer's estimate, $2,184,083)—Maryland Dredging & Contracting Co., Baltimore, Md., $2,052,844; American Pipe & Construction Co., 112 N. Broad St., Philadelphia, Pa., $2,014,411; H. S. Berkaugh, Inc., Arcade Bldg., Philadelphia, Pa., $1,990,043; Butler Bros. Construction Co., 1170 Broadway, New York, $2,354,379.

Contract No. 73, providing for the dredging of a channel in the Hudson River and performing work incidental thereto from Northumberland to Stillwater, a distance of 15 miles: (Engineer's estimate, $778,960)—E. M. Graves, Cleveland, Ohio., $767,467; S. Pearson & Son, Inc., 507 Fifth Ave., New York, $1,201,618. This is the second time that Contract 73 has been advertised. The former time no bid was received. With the award of Contract 73 all of the Hudson River dredging, excepting that portion which it is expected will be done by the Federal Government, between the Troy dam and Waterford, will have been placed under contract; and likewise this will practically complete the placing under contract of the Champlain Canal, about the only work yet remaining to be let being Contract 27-A, which is for the completion of the work, embraced with original Contract 27, held by the Kinser Construction Co., whose contract was cancelled.

EXAMINATIONS.

INSPECTOR OF METERS—New York, N. Y.—Applications will be received by the Municipal Civil Service Commission, 299 Broadway, until 5 p. m., June 8, for the position of inspector of meters and water consumption. A physical examination will precede the mental. Dates for the physical and mental examinations will be announced later. Candidates must be familiar with the general details of construction, operation and setting of the several styles of water meters allowed in the City, and must be able to read the same accurately. They should also be familiar with the proper installation and care of plumbing fixtures and means of detecting and preventing waste of water. Knowledge of the municipal rules and regulations, governing the use of water is also desirable. Minimum age, 21 years. Vacancies are constantly occurring. Salary, $1,100 a year.

INSPECTOR WATER-PIPE LAYING—Boston, Mass.—An examination for Inspector of Water Pipe Laying in the service of the Metropolitan Water and Sewerage Board will be held on June 14, to establish an eligible list from which to certify names to fill one vacancy in the position of Inspector Water Pipe Laying under the Metropolitan Water and Sewerage Board at a salary of $4 per day, and similar vacancies as they may occur. The examination will consist of the following subjects: Training and experience in laying water pipe and handling large bodies of laborers, arithmetic, knowledge of laying water pipe from six inches to 60 inches in diameter, trench work and explosives. Only citizens of the United States who have been residents of Massachusetts for the past year have a right to apply. A person desiring to take this examination may secure an application blank by appearing in person or by letter at the office of the Civil Service Commission, room 152, State House, Boston, on or before June 4.

INDUSTRIAL NOTES.

THE AMERICAN HOIST & DERRICK CO., of St. Paul, Minn., announces the removal of its Chicago office from 60 South Canal St. to 713 Fisher Building.

THE HARBISON-WALKER REFRACTORIES CO. announces that Mr. J. J. Brooks, Jr., General Sales Manager, has been elected to its directorate.

MR. L. L. GAILLORD has been appointed General Manager of the New England Co., Waterbury, Conn., to take the place of Mr. A. O. Shepardson, who has resigned on account of his health.

THE GARWOOD ELECTRIC CO. has appointed the George F. Herrig Co., Saginaw, Mich., as its agent. The territory is Saginaw, Mich., and all territory within a radius of 50 miles of Saginaw.

SCHALKENBACH & BUDKE, INC., announce they have taken over the business of manufacturing direct system of steel puttyless glazing construction. This firm was formerly known as Schalkenbach & Budke.

THE LINDE AIR PRODUCTS CO. announces the removal of its New York offices to Room 601, 30 Church St., Hudson Terminal Bldg., New York City. In these offices will be handled the Eastern business of the company, consisting of oxy-acetylene welding apparatus.

THE PRESSED STEEL CAR CO. has recently purchased a factory site in Schenectady, N. Y., consisting of 100 acres. It is the intention of the company, according to announcement made last week by Wesley E. Cole, Schenectady Board of Trade, to open the new plant next spring. About 5,000 men will be employed.

IDLE CARS CONTINUE to increase with much rapidity. According to the bulletin of the American Railway Association the net surplus in the United States and Canada was 122,503 on May 5. This is an increase of 24,000 during the fortnight and 45,000 during the month. The increase was especially notable in the Middle Atlantic States.

THE PARKER BOILER CO., 15th and Chestnut Sts., Philadelphia, announces that it has recently received the following orders: York Card & Paper Co., York, Pa., three 267-HP. boilers; Solvay Process Co., Syracuse, N. Y. (second order), one 406-HP. boiler with Parker Superheater; Eberhard Faber Pencil Co., Brooklyn, N. Y. (second order), one 289-HP. boiler; Roslyn Fuel Co., Roslyn, Wash., one 267-HP. boiler.

THE SIMONDS MFG. CO., Fitchburg, Mass., with several factories and many distributing stores in other parts of the country, is installing in the Crucible Steel Department of its Chicago plant, a Girod Electric Furnace, which is probably the first of this type to be built in this country. Many of these furnaces, however, are in every day successful operation abroad, these ranging in size from two tons to twelve and one-half tons capacity each.

THE KREHIEL CO., 1712 Marquette Bldg., Chicago, is the new name of the former Fuel Engineering Co. The change has been made on account of the development of the company's business in civil, mechanical and electrical engineering. The company prepares reports and appraisals upon engineering projects and undertakes the design of plants, structures, etc. In the line of fuel engineering it undertakes the examination and testing of fuels and their sale or purchase on the heat-value basis.

AN IMPORTANT CONTRACT for the Brazilian Government has been awarded to the Mead-Morrison Mfg. Co., 149 Broadway, New York City. This contract calls for an expenditure of approximately $15,000,000 for the construction of new docks, facilities for unloading, and especially coal-handling machinery at Rio de Janeiro. The company submitted plans for the improvement, which were passed upon and approved by the Government commission. The negotiations have been carried on by Gen. F. A. de Souzaguiar, representing the Brazilian Government.

THE WAGES PAID IN ITALY are given in the Annual Report of Consul Atbert H. Michelson, Turin, Italy as follows: Blacksmiths, 77 cts. to $1.35 a day, bricklayers 84 cts. to $1.06, master carpenters, 77 cts. to 97 cts., journeymen carpenters 58 cts. to 74 cts. In the foundry trades, casters 56 cts. to $1.15, moulders 39 to 77 cts., cleaners 58 to 96 cts. In the mechanical trades, smiths receive 77 cts. to $1.35, fitters, 54 cts. to $1.06, assemblers 77 cts. to $1.15, lathe hands 48 cts. to $1.15, while operators of drills and planers 54 to 81 cts. Master bakers receive 93 cts., while their helpers are paid 67 cts.

MORGAN ENGINEERING CO., Memphis, Tenn., announces that the company will devote special attention to the reclamation of swamp lands, tide lands, irrigation and in general, the bringing of barren lands to a fruitful state. The offices of the company are 612 Goodwin Institute Bldg., Memphis. The staff includes Mr. Arthur E. Morgan, Assoc. M. Am. Soc. C. E.; Mr. L. L. Hidinger, with Mr. S. M. Woodward, M. Am. Soc. M. E., consulting engineer. With them are associated Mr. C. F. Brown, Assoc. M. Am. Soc. C. E., Salt Lake City, Utah; Mr. Otto Kochtitsky, Cape Girarreau, Mo.; Mr. Gerardo Immediato, Assoc M. Am. Soc. C. E., Montclair, N. J., and Abbott Bios, Firriday, La.

PASSENGER RAILWAY terminal construction has changed considerably in recent years. The arch train shed is, by many engineers, considered obsolete. The type finding favor now permits the exhausted gases from the locomotives to escape through openings in the roof above the center line of the track. Among notable examples of this kind are the Washington Terminal and the Hoboken Terminal of the Lackawanna road. It is incident to note in this connection that the South Terminal in Boston will probably be changed so as to separate the concourse from the train shed proper and permit the escape of gases at either end of the shed.

EQUIPMENT ORDERS taken during the last fortnight include contracts for much equipment for the Harriman lines. These have been in abeyance for several weeks, and includes all steel cars as follows: 289 coaches, 35 postal, 87 chair, 59 baggage, 16 combination. Wooden cars include 25 diners and 12 observation. The companies have likewise placed, or have under contemplation, orders for 12,000 freight cars and 225 locomotives.

The Baltimore & Ohio is in the market for 1,000 all steel gondolas. The Pressed Steel Car Co. recently received an order for 118 all steel passenger cars to be shipped to Argentine.

Other inquiries include 300 cars for the St. Louis & San Francisco, 1,200 for the Toledo & Ohio Central, 750 for the Toledo, St. Louis & Western and 600 for the Western Maryland.

THE RESULTS obtained from the pay-as-you-enter car have almost uniformly been satisfactory. Details, however, are lacking, but "Public Service," Chicago, gives the following approximate percentages of savings obtained from the operation of such cars by the Chicago traction companies: Accidents caused by falling off of cars decreased 31%; liable accidents in boarding and alighting from cars decreased 62%. There was, also, a decrease of 21.4% in the amount paid for personal injury claims. As far as the operation was concerned, there was a decrease of 4.5% in the length of stops in loading and discharging passengers. This was for ordinary traffic, not including police stops or delays at the end of the run. Gross revenues increased 4.5%. There was likewise an increase of 3.4% in the revenue due to better collection of fares. These results were obtained when 90% of the cars were of the pay-as-you-enter type.

FOREIGN MARKETS for cement are being developed by the American Cement Co., Philadelphia, Pa. This will afford a direct outlet for the cement that will be made at the new Norfolk plant which will be completed in July. It will have a capacity of 800,000 to 1,000,000 barrels per year. The company expects to further develop markets in the West Indies and in South America. Shipments to South America have been going on for some time, but in a limited way. In Cuba there has been a considerable market for several years. It is believed that the present consumption of Portland cement in South America and the West Indies is from 4,000,000 to 5,000,000 barrels annually. With the further development of South American countries, cement will be more and more of a factor, and it is probable that this amount can be materially increased in time. The foreign trade in cement from this country has been of little or no moment, amounting to a little over 1,000,000 barrels a year, or less than 2% of the entire output. This company has secured for the Norfolk plant 2,500 to 3,000 acres on a tributary of the James River, ten miles from Norfolk. The Norfolk plant is also in a strategic position, in that it can secure water freight rates in the principal consuming cities of the country.

THE MERCHANTS & MANUFACTURERS EXCHANGE, which is being projected in connection with the new Grand Central Terminal, is exciting no little interest in the manufacturing field. It is the intention of the New York Central & Hudson River R. R. to erect two 12-story buildings, covering two city lots, each 200 × 275 ft., to be devoted primarily to exhibition purposes. The object is to obtain the exhibits of as many manufactures as possible in this exchange so that buyers will be able to find diversified lines of goods in the least possible time. For several years the furniture manufacturers have maintained an exhibition at Grand Central Palace, to be torn down to make room for these new buildings, and this has been highly satisfactory both to the makers of furniture and their customers. The present idea is simply an elaboration of this scheme, and an effort will be made to have a permanent exhibition of machines, equipment—practically everything that can be sold by sample. The location being in the heart of New York City, within easy access of all of the large terminals and on a direct line with the principal transportation system, makes the location a desirable one. The benefits accruing to the small manufacturer will probably be proportionately larger than to the companies, which, by reason of their large sales, are able to maintain a complete show room in other parts of the city.

THE PENSION SYSTEM of the Western Electric Co. has now been in operation about four years. Originally a sum of $400,000 was set aside as a permanent pension fund, and by additions, this has grown and it now amounts to $597,500. All employes of the company 60 years old, who have been employed for twenty consecutive years, are eligible to participate in the fund, and are not debarred from going into other business. Employees in service 35 years, irrespective of age, or who are 55 years old, and have been employed 25 years, may be granted an allowance on recommendation of the president. Any employe who has served ten years, and is incapacitated from any cause whatever, may receive aid from the fund at the discretion of the pension board. The annual allowance for each employe retired is as follows: For each year of active service 1% of the average annual pay during the ten years preceding retirement is paid, with the provision that the board may base the pension on the average annual pay for any ten consecutive years of service, during which the retired employe was paid a higher rate of wages. The pension allowed is paid monthly from the date of retirement until death, and at the discretion of the board may be continued to widows or orphans for not more than one year. The entire cost of the pension is borne by the company, and the employes affected amounted to 200,000.

TRADE PUBLICATIONS.

ELECTRIC SIGN FLASHERS. — Reynolds Electric Flasher Mfg. Co., 191 Fifth Ave., Chicago, Ill. Paper; 6 × 9 ins.; pp. 18; illustrated.

Various motor-driven devices for varying the contact of lamps on animated electric signs are described in these leaflets.

LIFTING MAGNETS—Cutler-Hammer Clutch Co., Milwaukee, Wis. Folder. Paper; 5 × 7 ins.; pp. 12; illustrated.

The principal thing shown in this long folder is the cross section of the Cutler-Hammer lifting magnets, with all the principal parts described and pointed out.

CLAM SHELL BUCKET.—The Owen Bucket Co., Cleveland, Ohio. Paper; 7½ × 10 ins.; pp. 23; illustrated.

This is a descriptive catalog of the Owen clam shell bucket, giving the dimensions of types manufactured and the reasons why it is to be recommended specially for heavy use.

STONE CRUSHERS.—The T. L. Smith Co., Old Colony Building, Chicago, Ill. Paper; 6 × 9 ins.; pp. 38; illustrated.

This pamphlet contains a detailed description of the Symons rotary crusher with drawings and illustrations, and, according to the preface, is intended to go "to many places in advance of their traveling salesmen."

CONCRETE REINFORCEMENT. — Gabriel Concrete Reinforcement Co., Penobscot Building, Detroit, Mich. Paper; 7 × 9¼ ins.; pp. 80; illustrated.

This pamphlet deals especially with the features of designing concrete structures, having in view the use of the Gabriel system of reinforcement. This includes the "ovoid" deformed bar, trussed bar, hooped column, etc. Numerous tables show the area of reinforcement required, and the loads carried by slabs and beams, retaining walls, etc., having different styles of reinforcement. There are lists and tables of buildings in which this system has been used.

REINFORCED - CONCRETE CONSTRUCTION.—Southern Ferro Concrete Co., Atlanta, Ga. Paper; 6 × 9 ins.; pp. 49; illustrated.

This pamphlet contains illustrations and testimonials relating to some of the work executed by the Southern Ferro Concrete Co. in the years 1908-09 and also drawings of some of the standard construction which it uses.

CEMENT.—Alpha Portland Cement Co., Easton, Pa. Paper; 9 × 12 ins.; pp. 48; illustrated.

This very artistic catalog contains photographs of a number of structures in which Alpha Portland Cement has been used and also short instructions as to the methods of manufacturing concrete and several of the standard specifications for the use of cement and concrete.

CYPRESS TANKS.—J. M. Davis & Sons, Palatka, Fla. Paper; 6 × 9 ins.; pp. 24; illustrated.

This pamphlet describes and illustrates cypress tanks both for locomotive water supply and pressure tanks on city buildings. Sectional illustrations are likewise given of plain conical covers for tanks. Considerable information is likewise given regarding the durability of cypress.

ROAD CONSTRUCTION AND DUST PREVENTION.—Barrett Mfg. Co., New York. Paper; 9 × 6 ins.; pp. 40; illustrated.

Information regarding various grades of tarvia supplied by this company for dust laying, and also for the building of roads which will be relatively dustless, is given in this pamphlet. The greater part of the pamphlet is taken up with testimonials and views relating to the roads on or in which tarvia has been employed.

SMALL FAN MOTORS.—General Electric Co., Schenectady, N. Y. Bulletin 4719. Paper; 8 × 10½ ins.; pp. 36; illustrated.

In a large and attractive bulletin this company shows the line of fan motors which it intends to market for the summer season of 1910. Types suitable for use in the home, office or public buildings are shown with special arrangements for desks, tables, walls, ceilings, etc. In addition, motors for various small domestic applications are shown.

DUMP CARTS FOR CONCRETE.—The Goit Mfg. Co., Oklahoma City, Okla. Folder; paper; 3¼ × 6¼ ins.; pp. 10; illustrated.

The carts are built entirely of steel and the body opens in the manner of a clam-shell bucket, each half having its own pivot. This gives a wide opening for dumping, but the movement is under control, so that the concrete can be discharged gradually if required. The cart has a capacity of 21 cu. ft. and weighs about 850 lbs. Testimonials are given.

WATER TUBE BOILERS.—S. Freeman & Sons Mfg. Co., Racine, Wis. Paper; 9 × 5¾ ins.; pp. 30; illustrated.

The Freeman water-tube boiler (made in sizes of 100 to 1,000 HP.) is of the horizontal type, with slightly inclined water tubes between vertical headers connected with steam drums at the top. The boiler is described in some detail, with particulars of its special features.

ROAD CONSTRUCTION.—An address by W. R. Goit, President Oklahoma Good Roads Assn., before the National Good Roads Convention at Topeko, Kan., Dec. 15, 1909. Evens & Howard Fire Brick Co., St. Louis, Mo. Paper; 3½ × 6 ins.; pp. 16; illustrated.

This pamphlet is a reprint of an address which devotes most of its attention to the principle that drainage is the most important part of road construction, and that this drainage is best taken care of by culvert pipe, and particularly by vitrified clay pipe.

ARC LAMPS.—General Electric Co., Schenectady, N. Y. Bulletin 4717. Paper; 8 × 10½ ins.; pp. 16; illustrated.

Flaming-arc lamps, having electrodes impregnated with calcium or barium salts and giving immense illumination at low cost, are described here. The mechanism of the different lamps is shown in great detail and there are a few illustrations of their use. These lamps all appear to be of the inclined-carbon, gravity-feed type, in which both carbons are in the lamp casing above the globe.

SEWAGE DISPOSAL.—Russell Sewage Disposal Co., Burlington, Iowa. Paper; 8 ×9½ ins.; pp. 16; illustrated.

There is next to no information in this catalog from which one can form an opinion as to what means of sewage disposal the company is promoting. About all that can be learned from the catalog is that reliance is placed upon bacterial action, that vitrified clay is used in construction, and that the "system" is intended particularly for residences, institutions and small towns. A long list of installations is given, and there are a number of illustrations showing buildings equipped with the "system."

WIRE ROPE.—Macomber & Whyte Rope Co., [illegible] So. Clinton St., Chicago, Ill. Paper; 7 × 10 ins.; pp. 64; illustrated.

A description of the wire rope made by this company, including the Kailindo non-rotating wire rope for general hoisting purposes. Also various kinds of hoisting, haulage and transmission rope. In the catalog is given the list prices, approximate weight per foot and sustaining strength in tons. A portion is likewise devoted to illustrating clips, turnbuckles, sheaves and the Monarch patent mine car hitching.

CONCRETE COVERED PILE.—The Robbins-Ripley Co., 50 Church St., New York. Paper; 6 × 8½ ins.; pp. 11; illustrated.

The Ripley combination pile is composed of a layer of concrete reinforced with spirally wound wire mesh. It is claimed that it has the strength and durability of a concrete pile and the ease of handling of a wooden pile. A number of them have been used in Southern waters as protection against the teredo. The pamphlet above shows several views of the pile and describes its construction.

REINFORCED - CONCRETE CONSTRUCTION.—Trussed Concrete Steel Co., Detroit, Mich. Paper; 9 × 11 ins.; pp. 89; illustrated.

Bound in a loose-leaf binder, so that additional sheets can be added when necessary, the Trussed Concrete Steel Co. has here a number of illustrations of the typical structures built according to the Kahn System within the last ten years. There is no text connected with the photographs, merely a caption to each one giving the title of the architect and the contractors.

ELECTRIC TIME SYSTEMS. — Standard Electric Time Co., Waterbury, Conn. Catalog 32. Paper; 6½ × 9 ins.; pp. 72; illustrated.

The time system as described in this catalog consists essentially of a master clock, made to run with any desired degree of precision, controlling secondary apparatus located in one building or many. The controlling and operating energy is electrical, being drawn from batteries. The master clock is wound electrically, and therefore the system never runs down so long as the energy supply is attended to. This catalog describes and pictures the master-clock mechanism, and shows a great variety of installations of the secondary time-indicating pieces.

STANDARD GEARS.—Boston Gear Works, Norfolk Downs, Mass. Catalog E 3. Paper; 3½ × 6 ins.; p. 93; illustrated.

This catalog lists the prices of the sizes of cast-iron, steel and brass gears adopted as standard by the Boston Gear Works. The pitch diameter, number of teeth, width of face, diameter of hole and projection of hub are given for each size of spur gear listed. The catalog covers also spur, bevel, miter and helical gears, internal gears, racks, etc. Sprocket wheels and chains, universal joints and special gearing for automobiles are shown; also sheet brass gears and pinion wire and gears of special materials such as rawhide and fiber.

ELECTRICAL INSTRUMENTS. — General Electric Co., Schenectady, N. Y. Bulletin 4721. Paper; 8 × 10½ ins.; pp. 9; illustrated.

The old, familiar, Thomson, direct-current, watt-hour meter is again described in this bulletin. It only needs to be recalled that this meter consists essentially of a small motor, without iron in its fields and armature, rotating at a very low speed and carrying a copper disk subjected to magnetic drag. The types here set forth (C-6, C-7 and C-Q) show certain variations in the mechanical features of design. A diagram of connections is appended.

Similar watt-hour meters with prepayment attachments are described in Bulletin 4716, at hand.

MINE TELEPHONES.—Western Electric Co., Hawthorne Plant, Chicago, Ill. Bulletin 1110. Paper; 8 × 10½ ins.; pp. 11; illustrated.

The Western Electric Co. has designed a new outfit of mine telephones, which is described in this bulletin. One of the complete talking sets shown is enclosed in a moisture-proof and rust-proof metal case. A similar set is mounted in a wooden case substantially put together with brass screws and treated to prevent the absorption of moisture. For use above ground, the arrangement of instruments more closely resembles the already familiar types. Throughout the instruments are designed to prevent trouble from tampering with the connection or accidental short-circuits. In the underground sets, all the removable parts, with the exception of the switch and induction coil, can be taken out and replaced without the use of a torch or soldering iron.

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

5-28 Elec. light system, etc., Fort Bayard, N. Mex. 5-12
5-31 Elec. light system, Fort Crockett, Tex. 5-12
5-31 Elec. equip., New York 5-19
6- 1 Heating plants, etc., Birmingham, Ala. 5-19
6- 1 Equipment, Elizabethtown, Tenn. 5-19
6- 2 Elec. light system, Fort McKinley, Me. 5-12
6- 4 Heating systems, etc., Boston, Mass. 5-12
6- 6 Heating system, Fort Logan H. Roots, Ark. 5-19
6- 6*Elec. lighting system, Fort Andrews, Mass. 5-19
6- 8 Lighting plant, La Moure, N. Dak. 5-12
6- 6 Electric equip., New York 5-26
6- 9 Elec. light fixtures, Newton, Iowa 5-26
6- 9 Elec. wiring, Plattsburg, N. Y. ... 5-26
6-10 Heating plant, Omaha, Neb. 5-26
6-11 Substation, Charleston, S. C. 5-12
6-11 Piping, etc., Charleston, S. C. 5- 5
6-14 Heating plant, Wahpeton, N. Dak. 5-26
6-17*Hydroelectric plant, etc., Idaho Falls, Idaho 5-26
6-30 Power plant, Cisco, Utah 5-19

Bridges.

At once Bridge, Waltham, Mass 5-26
5-28 Bridge, Quincy, Ill 5-12
5-28 Bridge, Lacy, Colo 5-19
5-28 Bridge, Una, Colo 5-19
5-28 Bridge, Watertown, Wis 5-19
5-31 Bridges, Arcadia, Tex 5-19
5-31 Bridge, Barton, Ohio 5-19
5-31 Bridge, Syracuse, N. Y 5-26
6- 1 Bridge, New Albany, Ind 5-26
6- 1 Bridges, Elyria, Ohio 5-26
6- 1 Bridges, Butler, Pa 5-19
6- 1 Bridge, McCook, Neb 5-12
6- 1 Bridge, Gretna, La 3-24
6- 1 Substructure, Whiterocks, Utah .. 3-10
6- 2 Bridges, Lincoln, Neb 5-19
6- 2*Test borings, New York 5-19
6- 2 Bridges, etc., Fargo, N. Dak 5-26
6- 3 Bridge, Taylor Falls, Minn 5-12
6- 4 Bridges, Centralia, Wash 5-26
6- 4 Bridge, Massena, N. Y 5-26
6- 6 Bridge, Los Angeles, Cal 5-26
6- 6 Bridges, Duluth, Minn. 5-26
6- 6 Bridge, Hammond, Ind. 5-26
6- 6 Superstructure, Warren, Ohio 5-26
6- 6 Bridge, Smithfield, N. C 5-26
6- 6 Bridge, Jeffersonville, Ind 5-12
6- 6 Bridges, Crown Point, Ind 5- 5
6- 6 Bridge, Nashua, N. H 5-26
6- 7 Bridges, Farmington, Mo 5-26
6- 7 Bridges, Highland Park, Ill 5-26
6- 7 Bridges, Madison, Ind. 5-26
6- 7 Bridges, Shelbyville, Ind. 5-26
6- 7 Bridges, etc., Fort Wayne, Ind .. 5-26
6- 8 Bridge, Cheyenne, Wyo 5-26
6- 8 Bridge approach, Hastings, Minn. 5-26
6- 8 Bridges, La Fayette, Ind 5-26
6- 8 Bridges, Greencastle, Ind 5-26
6- 8 Bridges, Troy, Ohio 5-19
6-13*Substructure, etc., Fort Smith, Ark. 5-26
6-17 Superstructure, Cincinnati, Ohio. 5-26
6-20 Bridge, Greenfield, Ind 5-19
6-21*Bridge work, St. Louis, Mo 5-19
6-22 Bridge work, Cleveland, Ohio 5-26
6-28*Bridge, Winnipeg, Man 5- 5
7- 5 Bridge, Stevenson, Wash 5-12
7- 6 Bridges, Metz, Cal. 5-26
7-25 Bridges, Leesburg, Va. 5-26

Buildings.

5-27 Barracks, Ft. Winfield Scott, Cal. 5- 5
5-27*Quarters, Ft. Monroe, Va 5- 5
5-27 School sites, Wash., D. C 5-26
5-27 Schools, Toronto, Ont 5-26
5-28 Warehouse, Toronto, Ont 5-26
5-28*Stable, etc., Ft. Meade, S. Dak .. 5-12
5-28 Quarters, Ft. Bayard, N. Mex ... 5-19
5-28 Warehouse, Toronto, Ont 5-19
5-30 Schools, Toronto, Ont 5-26
5-31 Ice plant, Ft. Bliss, Tex .... (Mfg. Pl.) 5-26
5-31*Ice plant, Whipple Barracks, Ariz .... (Mfg. Pl.) 5- 5
5-31*Post-office, Keene, N. H 4-28
5-31*Storehouse, Whipple Bks., Ariz .. 5-12
5-31 Schools, New York 5-19
6- 2 School, Bluffton, Ind 5-19
6- 2 Post-office, Carrollton, Mo 5- 5
6- 4 Ice plant, Ft. Sam Houston, Tex. .... (Mfg. Pl.) 5-12
6- 4 Laundry, Ft. Sam Houston, Tex. .... (Mfg. Pl.) 5-12
6- 4 Gymnasium, Ft. Porter, N. Y 5-26
6- 4*Comfort stn., Niagara Falls, N. Y. 5-26
6- 6 Mech. equip., Philadelphia, Pa ... 5-26
6- 6 Court-house, Fairfield, Cal. 5-26
6- 6 Schools, New York 5-26
6- 6*Elevators, New York 5- 5
6- 7 Post-office, Fremont, Neb 4-28
6- 8*Buildings, Ft. D. A. Russell, Wyo. 5-19
6- 9*Post-office, Middletown, N. Y ... 5- 5
6- 9*Plumbing, Madison Barracks, N. Y. 5-12
6- 9 Quarters, Plattsburg, N. Y 5-19
6-11 Elevators, Omaha, Neb 5-19
6-11*Stable, Madison Barracks, N. Y. 5-19
6-11 Nurses' quarters, New York 5-12
6-13 Boiler plant, Pittsburg, Pa 5- 5
6-13*Bakery, Madison Baracks, N. Y. .... (Mfg. Pl.) 5-19
6-14 Post-office, Asbury Park, N. J .. 5-12
6-14 Dept. building, Ottawa, Ont 5-26
6-15 Alterations, etc. San Francisco, Cal. 5-12
6-15 Schools, Magnolia, Ark 5- 5
6-15*Building, Cincinnati, Ohio 5-19
6-16*Plumbing, Charleston, S. C 5-19
6-16*Guardhouse, Ft. Strong, Mass ... 5-19
6-19 Plans, Milwaukee, Wis 5-26
6-20*Post-office, Columbus, Ind 5-19
6-23 Post-office, Clinton, Mo 5-26
6-24*Post-office, Aiken, S. C 5-24
6-27 Post-office, Minneapolis, Minn ... 5-26
6-28*Post-office, Plattsmouth, Neb 5-26
6-30*Post-office, Greenville, Ill 5-26
7- 1 Plans, New Orleans, La 3-17

Water-Works.

5-28 Water system, Ft. Ward, Wash. 5-12
5-28 Pumping Sta. repairs, Chicago, Ill. 5-26
5-28 Pumping Sta. addition, Duquesne, Pa. 5-26
5-30 Air compressors, Dallas, Tex 5-26
5-31 Pipe, Perry, Iowa 5-26
5-31 Concrete flue, North Tonawanda, N. Y. 5-19
6- 1 Water works, Mt. Pleasant, Tenn 5-19
6- 1*Dam, Fort Meade, S. Dak 5- 5
6- 1 Reservoir, North East, Md 4-14
6- 1 Water-works, New Baden, Ill 5-26
6- 3*Dam work, Danville, Ill 5-19
6- 4 Water-works addition, etc. Fort Williams, Me 5-19
6- 6 Steel tank, Fort Logan H. Roots, Ark. 5-19
6- 6 Distr. system, Ft. Missoula, Mont. 5-19
6- 6 Reservoir, Jacksonville, Fla 5- 5
6- 6*Dam, Newburgh, N. Y 5-26
6- 6 Well, Corydon, Iowa 5-26
6- 7 Reservoir, Waterbury, Conn 5-12
6- 7 Water-works, ext., Havelock, Neb. 5-19
6- 8*W.-Wks. material, Athens, Tex .. 5-19
6- 8*Tower and tank, Kankakee, Ill ., 5-26
6- 9 Wells, Rahway, N. J 5-26
6-10*Reservoir, Tyrone, Pa 5-26
6-10 Reservoir, Fort Sill, Okla 5-19
6-14 Water main, Cleveland Heights, Ohio 5-19
6-14*Pump station, Detroit, Mich 4-21
6-14*Water system, Harrison, N. Y ... 5-26
6-14 Water-works, Huntsville, Mo 5-26
6-14 Water main extensions, etc., North Chicago, Ill. 5-26
6-15 Filter, Clarksburg, W. Va 5-19
6-20 W.-Wks. franchise, Dayton, Ky .. 5-26
7- 1 Steel pipe, Los Angeles, Cal 5-26
7- 8 Canal enlargement, Boise, Idaho. 5-19

Sewers.

5-27 Sewer, Seattle, Wash 5-12
5-27 Sewers, Youngstown, Ohio 5-12
5-28 Drainage impvt. work, Leamington, Ont 5-19
5-29 Sewer, Warren, Ohio 5-26
5-30 Sewers, Regina, Sask 5-19
5-30 Sewers, Fort Mansfield, R. I ... 5-19
5-31*Sewer, St. Louis, Mo 4-28
5-31 Sewer extension, San Luis Obispo, Cal. 5-26
5-31 Sewer, Oklahoma City, Okla 5-26
5-31 Sewer, Springfield, Ohio 5-26
5-31 Sewage disposal plant, etc., Marble Cliff, Ohio 5-26
5-31 Sewers, Ridgewood, N. J 5-26
5-31 Sewers, Toronto, Ont 5-26
6- 1 Sewerage system, Caldwell, Kan. 5-26
6- 1 Sewage disposal plant, Jefferson, Ohio 5-26
6- 1*Sewers, Westfield, Mass 5-26
6- 1 Sewers, Amsterdam, N. Y 5-12
6- 1 Sewer system, Fort Wingate, N. Mex. 5-12
6- 1 Sewer system, Independence, Ore. 5-19
6- 1 Sewer system, etc. Waukon, Ia .. 5-19
6- 1 Sewer, Norwalk, Ohio 5-26
6- 3 Sewer, Appleton, Wis 5-12
6- 4 Sewer additions, Ft. Williams, Me. 5-19
6- 6*Sewers, Plainfield, N. J 5-12
6- 6 Sewer system, Ft. Missoula, Mont. 5-26
6- 6 Sewers York, Pa 5-26
6- 6*Sewers, Marcus Hook, Pa 5-26
6- 7 Sewers, Laporte, Ind 5-26
6- 7 Sewers, Lorain, Ohio 5-26
6- 7 Sewer, St. Louis, Mo 5-12
6- 7 Sewers, Havelock, Neb 5-19
6- 7*Sewage pump station, Chattanooga, Tenn 5-19
6- 8 Sewers, Princeton, W. Va 5- 5
6- 8 Sewers, Sandusky, Ohio 5-26
6- 8 Sewers, Brooklyn, N. Y 5-26
6- 8 Repairing sewage pumps, Brooklyn, N. Y 5-26
6- 9 Sewer, Huntington, W. Va 5-26
6- 9 Sewer bonds, Norfolk, Va 5-26
6-10*Sewers, Louisville, Ky 5-26
6-14 Sewer, St. Louis, Mo 5-12
6-14 Sewers, Belton, Tex 5-26
6-15 Lateral sewer, Vancouver, Wash. 5-26
6-21*Sewer, St. Louis, Mo 5-19
6-22*Sewerage extensions, etc., Freehold, N. J. 5-26

Streets and Roads.

5-26 Paving, Elgin, Ill 5-26
5-27 Paving, Carnegie, Pa. 5-26
5-27 Street repairs, Chicago, Ill 5-26
5-27 Sidewalks, etc., Struthers, Ohio. 5-19
5-27 Paving, Watertown, Wis 5-19
5-27*Roads, Albany, N. Y 5-12
5-27 Sidewalks, Valparaiso, Ind 5-12
5-27 Gravel road, Wabash, Ind 5- 5
5-27 Sidewalks, Grand Rapids, Mich .. 4-28
5-27 Paving, New Albany, Ind 5-26
5-28*Paving, Boise, Idaho 5- 5
5-28*Road, Montvale, N. J 5-12
5-28 Macadam, Belvidere, N. J 5-26
5-28 Macadam Morristown, Ohio 5-26
5-28 Road, Mansfield, Ohio 5-26
5-30 Macadam, Ft. Terry, N. Y 5-19
5-31 Roads, etc., Ft. McKinley, Me ... 5-19
5-31 Limestone, St. Clairsville, Ohio .. 5-19
5-31 Paving, Osage, Ia 5-19
5-31*Roads, etc., Ft. Hancock, N. J .. 5-12
5-31 Roads, Pittsburg, Pa 5-12
5-31 Macadam, Waterbury, Conn. 5-26
5-31 Paving, New York 5-26
5-31 Paving, etc., Dayton, Ohio 5-26
5-31 Paving, Toronto, Ont. 5-26
6- 1 Gravel road, Spotsylvania, Va ... 5-26
6- 1 Macadam, Ft. Riley, Kan 5-26
6- 1*Paving, Dundee, Neb 5-26
6- 1 Roads, etc., Fort Screven, Ga ... 5-12
6- 1 Macadam, Pleasant Ridge, Ohio .. 5-19
6- 1 Paving, New York 5-19
6- 2 Paving, New York 5-26
6- 2 Resurfacing, Dunkirk, N. Y 5-26
6- 2 Street impt., Frostburg, Va 5-26
6- 3*Planking, paving, Watertown, N. Y. 5-26
6- 3 Road, Concord, N. H 5.26
6- 3 Macadam, Wadesboro, N. C 5-26
6- 3 Macadam, Cincinnati, Ohio 5-26
6- 3 Paving, Logan, Ohio 5-26
6- 3 Paving, Duluth, Minn. 5-26
6- 3 Road, Mt. Gilead, Ohio 5-19
6- 4 Paving, Racine, Wis 5-19
6- 4 Paving, New Haven, Conn 5-26
6- 4*Sidewalks, Wash., D. C 5-26
6- 6 Roadway, Portland, Mt 5-19
6- 6 Road repairs, Albany, N. Y 5-19
6- 6 Grading, Perth Amboy, N. J ... 5-19
6- 6 Road, Wauseon, Ohio 5-19
6- 6 Road, Kentland, Ind 5-19
6- 6 Gravel road, Williamsport, Ind ... 5-12
6- 6 Stone road, Vernon, Ind 5-12
6- 6 Gravel roads, Tipton, Ind 5-12
6- 6 Gravel road, Crawfordsville, Ind. 5-12
6- 6 Street work, Yonkers, N. Y 5-26
6- 6 Paving, Lucas, Ohio 5-26
6- 6 Sidewalks, Southport, Ind 5-26
6- 7 Gravel road, Richmond, Va 5-26
6- 7 Roads, Valparaiso, Ind 5-26
6- 7 Roads, Rockville, Ind. 5-26
6- 7 Paving, Billings, Mont 5-12
6- 7*Paving, Jackson, Miss 5-12
6- 7 Gravel road, Bloomfield, Ind 5-12
6- 7 Gravel road, Williamsport, Ind ... 5-12
6- 7 Macadam, Trenton, N. J 5-19
6- 7 Road, Monticello, Ind 5-19
6- 7 Road, Marion, Ind 5-19
6- 7 Roads, Wabash, Ind 5-19
6- 8 Road, Muncie, Ind 5-19
6- 8 Paving, Princeton, W. Va 5-12
6- 8 Gravel roads, Peru, Ind 5-12
6- 8 Stone road, Concord, N. H 5-26
6- 8 Paving, New York 5-26
6- 9 Gravel, New York 5-26
6- 9*Paving, Hyde Park, Pa 5-26
6- 9 Roads, Bluffton, Ind 5-26
6- 9 Roads, Laporte, Ind 5-26
6- 9 Road, Logansport, Ind 5-12
6- 9 Macadam, Ft. Sam Houston, Tex. 5-19
6-10 Roads, Cincinnati, Ohio 5-26
6-11 Macadam, Delaware, Ohio 5-26
6-11 Road, Vincennes, Ind 5-19
6-13*Road, Burlington, N. J 5-26
6-15 Road, Ft. Barrancas, Fla 5-26
6-15 Roads, Peru, Ind 5-26
6-15*Street impvt., Freehold, N. J 5-26
6-20*Grading, Canton, Ohio 5-26
6-21 Paving, Billings, Mont 5-26
6-23 Paving, Carrollton, Ohio 5-26

Miscellaneous.

5-27 Concrete wall, Rahway, N. J ... 5-19
5-27 Sweeping machines, etc., (Garbage), Los Angeles, Cal 5-26
5-28 Park, Watertown, Wis 5-26
5-28 Drainage, etc., Pelee Island, Ont. 5-19
5-30 Elec. Ry. grading, Altoona, Pa .. 5-12
5-31 Waste refuse (garbage), Cleveland Ohio 5-12
5-31*Garbage plant (Garbage), Vancouver, B. C. 4-21
5-31 Cement, New York 5-19
5-31 Steel steamer, Ottawa, Ont 5-19
6- 1 Supplies, Panana 5-19
6- 1 Garbage disposal (Garbage), Long Island City, N. Y 5-26
6- 1 Reels, carts, Wash., D. C 5-26
6- 1 Garbage disposal (Garbage), Bridgeport, Conn 5-26
6- 2 Levee, Jacksonville, Ill. 5-19
6- 3 Pier, Colchester, Ont 5-19
6- 3 Pier work, Pentwater, Mich 5 12
6- 3 Canal, Ottawa, Ont 5-26
6- 3 Oiling road, Cincinnati, Ohio 5-26
6- 4 Street sweepings (Garbage), New York 5-26
6- 4 Ditch, Anderson, Ind. 5-26
6- 4 Ditch, Washington, Iowa 5-26
6- 4 Steel tanks, Wash., D. C 5- 5
6- 6 Anchors, Fort Totten, N. Y 5- 5
6- 6 Riprap, Plymouth, Mass 5-19
6- 6 Pier, New York, N. Y 5-26
6- 6 Oils, grease, New York, N. Y ... 5-26
6- 7 Drainage, Forest City, Iowa ... 5-26
6- 7 Drainage, Waco, Tex 5-26
6- 7 Broken stone, screenings, New York, N. Y 5-26
6- 8 Testing materials, Cleveland, O. 5-19
6- 9 Ditch, Council Bluffs, Iowa 5- 5
6-10*Garbage disposal (Garbage), Toledo, Ohio. 5-26
6-10 Dredging, New Orleans, La 5-26
6-14*Riprap, Wilmington, N. C 5-19
6-15*Foundations, pier extensions, Wheeling, W. Va 5-19
6-15*Drainage canals, Tallahassee, Fla. 5- 5
6-15*Lock gates, Panama 4-21
6-15 Drain, Clarion, Iowa 5-12
6-15 Wharf extension, Ft. Barrancas, Fla. 5-26
6-17*Dredging equipment, Philadelphia, Pa 4-28
6-18 Refuse kiln (Garbage), Boston, Mass. 5-26
6-18 Seawall, Newport, R. I 5-26
6-20 Wharf extension, Sault Ste. Marie, Ont. 5-26
6-23*Breakwater, Newport, R. I 5-26
6-27*Steel lock gates, etc., Buffalo, N. Y. 5-26
6-27*Ladder dredge, Panama 5- 5
6-29*Bulkhead, etc., New York, N. Y. 5-26
7-25*Dams and canal, Porto Rico 5-12

Examinations.

5-28 Highway Inspector, Albany, N. Y. 5-12
5-28 Junior Assistant, Albany, N. Y .. 5-12
5-28 Axeman, Albany, N. Y 5-12
6- 1 Bacteriological Chemist, Philadelphia, Pa 5- 5
6- 1 Wireless Engr., Philippines 5- 5
6- 1 Wireless Telegraph Operator, Philippines 5- 5
6- 8 Inorganic Chemist, Philippines .. 5-12
6- 8 Bacteriologist and Pathologist, Philippines 5-12
6- 8 Inspector of Meters, New York, N. Y. 5-26
6-14 Inspector Water-Pipe Laying, Boston, Mass. 5-26
6-15 Surveyor, Philippines 5-12
6-15 Geologist, Washington, D. C 5-19
7-13 Examiner, Klamath Falls, Ore ... 5-12

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

5-31 Elec. light system, Fort Crockett, Tex. .... (P. & S.) 5-19
6-11 Substation, Charleston, S. C. (S.) 5-12
6-11 Nurses' quarters, New York .. (S.) 5-12
6-14 Water main extensions, North Chicago, Ill. .... (S.) 5-26
6-15*Drainage canals, Tallahassee, Fla .... (P. & S.) 5- 5
6-15*Foundations, pier extensions, Wheeling, W. Va .... (S.) 5-19
6-18 Refuse kiln, Boston, Mass ... (S.) 5-26
6-18 Seawall, Newport, R. I .... (S.) 5-26
6-21*Bridge work, St. Louis, Mo .... (P. & S.) 5-19
6-28*Bridge, Winnipeg, Man. (P. & S.) 5- 5

SECTIONAL SAFETY STAIR TREAD.—John W. Rapp Co., 1 Madison Ave., New York City. Paper; 5 × 8 ins.; pp. 4; illustrated.

The illustrations show the application of the tread to concrete steps and wooden steps. Each "section" is a strip of material extending across the stair from side to side of the staircase and is separately fastened to the stair by screws. In the case of the concrete stair, a cast-iron plate is embedded in the stair and the tread strips are screwed to the plate. Each tread strip fits into a thin metal case in the edges of which are holes for the screws. The case takes none of the wear. The tread strips themselves have a cross-section shaped like the segment of a circle. The material of which they are made is not mentioned.

LOCOMOTIVE CRANES.—Orton & Steinbrenner, Chicago, Ill. Bulletin No. 6. Paper; 9 × 5⅞ ins.; pp. 16; illustrated.

Cranes of 10, 15 and 20-ton capacity are shown in this bulletin, and a few pages are devoted to a patent clam shell bucket distinguished by its wide spread and low height when open and by having reversible scoops. The scoops can be taken off, turned end for end and readjusted, giving practically twice the life of an unreversible scoop.

Most of the pages are filled by photographic illustrations, with brief descriptive notes, showing standard and broad gage cranes equipped with blocks, buckets or lifting magnets. There is a dimension diagram and a table of lifting capacities without rail clamps or outriggers for radii of 10 to 50 ft.

RECORDING THERMOMETERS.—The Bristol Co.; Waterbury, Conn. Bulletin No. 124. Paper; 8 × 10½ ins.; pp. 4; illustrated.

The thermometer described is for outdoor atmospheric temperatures. The recorder, of the usual Bristol pattern, is installed at any desired point (within reasonable limits) inside the building. The sensitive bulb is installed in a protecting lattice box attached to the wall of the building, or a suitable post outdoors. Connection from the bulb to the recorder is made by means of flexible copper capillary tubing which may be 25 ft. long, or even longer. The circular charts for the recorder are arranged to revolve either once in 24 hrs. or once in 7 days with various styles of graduation to meet local conditions and requirements. These thermometers, complete, are listed at $60 to $75.

HYDRAULIC MOTOR FOR OPERATING WATER-WORKS VALVES.—The A. P. Smith Mfg. Co., Newark, N. J. Four-page folder; 6¼ × 8½ ins.

A hydraulic motor which may be either permanently installed in connection with water-works valves, or moved from valve to valve by a repair wagon or otherwise, is briefly described in this folder. The motor, when used in portable form, becomes readily available for testing the valves at intervals to make sure that they are in order. That the motor is a great time-saver may be inferred from a statement in the circular to the effect that 30 to 36-in. valves may be opened or closed in from three to five minutes. That it is a money-saver may also be inferred from the fact that, aside from the small period of time required to operate it, only one man is required to open or close a valve when the motor is used.

COMPOUND WATER-METERS. — Neptune Meter Co., New York. Four-page folder, 3½ × 6 ins.; illustrated.

A small meter for small streams and a large meter for large streams, the latter coming into operation automatically, have been combined by this company and given the name of the "trident-compound meter." The small meter is of the disk type and the large one is of the current type. All the parts of both meters are in one casting. Two registers are provided, the readings on which are added together in order to get the total amount which the meter has passed. Sizes and dimensions are given for 2, 3, 4, and 6-in. meters. A typewritten statement sent out by the company gives results of a test of a 4-in. compound meter sent to New Orleans last October. In passing 1 550 cu. ft. in a minute, the small meter in the pair, which had a diameter of 1 in., registered 60%; at a rate of 1/65 cu. ft. per minute, the per cent. of accuracy was 90; at 1 30, 90; at 1/10, 100; at 2.15, 98. When the total quantity flowing reached 2.2 cu. ft. per minute, 9% was registered by the 1-in., and 90% by the 4-in. meter; at 20 cu. ft., 1% and 99%, respectively; from 30 to 66 cu. ft. per minute, the registry of the small meter diminished from 0.25 to 0.1%, and that of the larger meter increased correspondingly, the total registry in each case being 100%.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 228.

SEWER CONSTRUCTION.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
(Incorporated.)

Sealed proposals for the construction of Section "C," Northeastern Sanitary Trunk Sewer, Contract No. 69, will be received at the office of the Commissioners of Sewerage, 605 Equitable Building, Louisville, Ky., until 12 o'clock noon, June 10th, 1910.

The work consists mainly of the construction of 1,830 ft. of 24" plain concrete sewer, 540 ft. of 20" vitrified pipe, 900 ft. of 18" vitrified pipe, including 3,299 ft. of earth excavation, from 2.1 to 15.8 ft. deep, about 270 cu. yds. of concrete and 1,200 cu. yds. rock excavation.

Plans and specifications may be seen at the office of the Commissioners, and at the office of Harrison P. Eddy, Consulting Engineer, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposals for Section "C," Northeastern Sanitary Trunk Sewer," and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

P. L. ATHERTON,
Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
(Incorporated.)

Sealed proposals for the construction of a sewer known as Section "D," Northeastern Sanitary Trunk Sewer, Contract No. 70, of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, June 10th, 1910.

The work will consist mainly of building a sewer 15" to 22" diameter, total length about 3,369 ft. and from 5.6 to 12.4 ft. deep, and including 20 cu. yds. of concrete, 3,369 feet of vitrified pipe from 15" to 22" diameter, and 700 cubic yards of rock excavation.

Plans and specifications may be seen at the office of the Commissioners, and at the office of Harrison P. Eddy, Consulting Engineer, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposals for Section "D," Northeastern Sanitary Trunk Sewer," and addressed to the Commissioners of Sewerage, Equitable Building, Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

P. L. ATHERTON,
Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

ROAD WORK.

Canton, Ohio, May 23, 1910.

Sealed proposals will be received at the Office of the Commissioners of Stark County, Ohio, until 10.00 o'clock A. M., June 20, 1910, for draining, grading and paving with brick 3.06 miles of road in Canton and Osnaburg Townships in said County, under the provisions of the laws of Ohio. Specifications, plans and profiles on file in the Office of the County Commissioners at Canton, Ohio, and copies of specifications may be obtained at said office. Certified check, $500.00, must accompany bid and be made payable to Stark County Commissioners.

The County Commissioners reserve the right to reject any and all bids, or parts of bids. Blank proposals will be furnished.

J. H. McCONNELL,
Auditor Stark County, Ohio.

WATER SUPPLY SYSTEM.

Harrison, N. Y.

Sealed proposals endorsed "Proposal for Constructing Water Supply System" will be received by the Board of Water Commissioners, Town of Harrison, Northern District, Westchester County, N. Y., at their office in the Fire House, Silver Lake Park, Harrison, N. Y., until four o'clock P. M. on the 14th day of June, 1910.

The work will include:

1 Well.
1 Pump House,
2 Triplex Pumps,
2 Induction Motors,
1 Elevated Tank.

Approximately 21,000 lineal feet of water mains will be laid, together with gate valves, hydrants, etc.

Each bid must be accompanied by a certified check for a sum equal to five (5) per cent. of the amount of bid.

A Surety Company bond for an amount equal to fifty (50) per cent. of the bid will be required.

The Board of Water Commissioners reserves the right to reject any and all bids.

Plans and specifications may be seen and bidding forms obtained at the office of the Engineer, No. 5 Court Street, White Plains, N. Y.

EDWARD C. GAINSBORG,
President.
JOHN M. FARLEY Engineer.

PAVING.

Freehold, N. J.

Sealed proposals wanted by the Board of Chosen Freeholders for stoning road bed and wings, paving gutters and curbing Main Street and South Street in Freehold, Monmouth County, N. J., in accordance with the plans and specifications. Beginning at Manalapan Avenue on Main Street and ending at the town limits at Eastern end of Main Street, and beginning at P. R. R. tracks on South Street and ending at Institute Street.

Plans and specifications may be seen at the office of the Board of Chosen Freeholders in the Court House, Freehold, N. J., or at the office of the Town Clerk of Freehold, N. J., or at the office of G. K. Allen, Jr., County Engineer, Red Bank, N. J.

Specifications may be obtained by addressing George W. Patterson, Jr., Clerk of the Board of Chosen Freeholders, Freehold, N. J.

Bids will be opened at the office of the Board of Chosen Freeholders in the Court House, Freehold, N. J., at eleven o'clock a. m. on Wednesday, June 15, 1910. Each bidder must accompany his bid with a certified check for $1,000.00 as provided for in the specifications. Checks will be returned to the unsuccessful bidders, but proposals will be retained for reference.

The Board reserves the right to reject any or all bids.

WILLIAM B. CONOVER,
Director.
G. K. ALLEN, Jr., Engineer.
Attest:
GEO. W. PATTERSON, Jr.,
Clerk of Board.
Dated May 20, 1910.

PAVING AND PAINTING.

Watertown, N. Y.

Bids will be received at the office of the City Engineer, City Hall, Watertown, N. Y., until 8 P. M., June 3d, 1910, for furnishing and placing about 55,000 feet B. M. of timber and plank treated with creosote or other preservative and for furnishing and placing about 1,200 square yards of wood block pavement on the viaduct over the railroad tracks in Arsenal Street, and for furnishing the paint and for painting all the iron and steel work in the above named structure.

BOARD OF PUBLIC WORKS,
By E. W. SAYLES,
City Engineer.
Watertown, N. Y.

OFFICE, COMMISSIONERS, D. C., Washington, May 21, 1910.—Sealed proposals will be received at this office until 2 o'clock P. M., Saturday, June 4, 1910, for laying cement sidewalks in the District of Columbia. Forms of proposals, specifications and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Building, Washington, D. C. CUNO H. RUDOLPH, JOHN A. JOHNSTON, WILLIAM V. JUDSON, Commissioners, D. C.

SEWERAGE EXTENSIO AND PUMPING STATION

Freehold, New ey.

Sealed proposals, marked posal for Sewerage Extensions and ping Stations," will be received until M. on Wednesday, June 22, 1910, hich time they will be publicly ope and read at a meeting to be held in of- fice of Charles H. Butcher, Tow rk, 11 East Main Street, in Freeho New Jersey.

Plans and specifications may een and blank forms of proposal obta at the office of the Commissioner, 2 th Street, Freehold, N. J., and also he office of Waring, Chapman & Fa ar, Civil Engineers, 874 Broadway, ew York City.

Each proposal must be made o he regular blank form which may be o in- ed as above, and must be accompan by a certified check for One Thousan ol- lars ($1,000).

The proposed work consists of ap xi- mately 18,000 feet of 8-inch se rs; 3,400 feet of 4-inch iron pipe ree mains; 3 pumping stations (not in ud- ing houses and machinery); also an- holes, lampholes, flush-tanks, and her appurtenances.

The right to reject any or all bi is reserved.

ALEX. L. MOREAU,
Commissioner.
CHARLES H. BUTCHER,
Clerk.
Dated May 23, 1910.

PUMPS. PIPE, VALVES, ETC.

Garvin, Okla.

Sealed bids will be received by the Town of Garvin, Oklahoma, for the purchase of said town of two 200-gallon Duplex Pumps fitted with pressure regulating governors; 1 Trixplex Pump and Motor, and 8,100 ft. of Cast Iron water mains; 22 Fire Hydrants; 8 Water Gate Valves.

Bids to be addressed to C. M. Carr, Town Clerk.

Specifications can be had on application to

O'NEIL ENGINEERING CO.,
Dallas, Texas.

FOR SALE

FOR SALE.
One-third or more interest in a
STRUCTURAL STEEL SHOP AND FOUNDRY
in Chicago. A long-established, well-paying business. Address "V. 21," Engineering News, 1636 Monadnock Block, Chicago. 21-1t

SURVEYING MANUAL
A Manual of Field and Office Methods
PENCE & KETCHUM,
CONTENTS.
General Instructions, The Chain and Tape, The Compass, The Level, The Transit, Topographic Surveying, Land Surveying, Railroad Surveying, Errors of Surveying, Methods of Computing, Freehand Lettering.
Cloth; 4½ × 6½ ins.; 250 pp.
Illustrated; $2.00.
ENGINEERING NEWS BOOK DEPT.
220 Broadway, New York.

Engineering News
is more frequently consulted for
TECHNICAL HELP
MISCELLANEOUS WANTS
SALE OF SECOND-HAND MACHINERY AND EQUIPMENT
than any other Engineering Journal in the United States.